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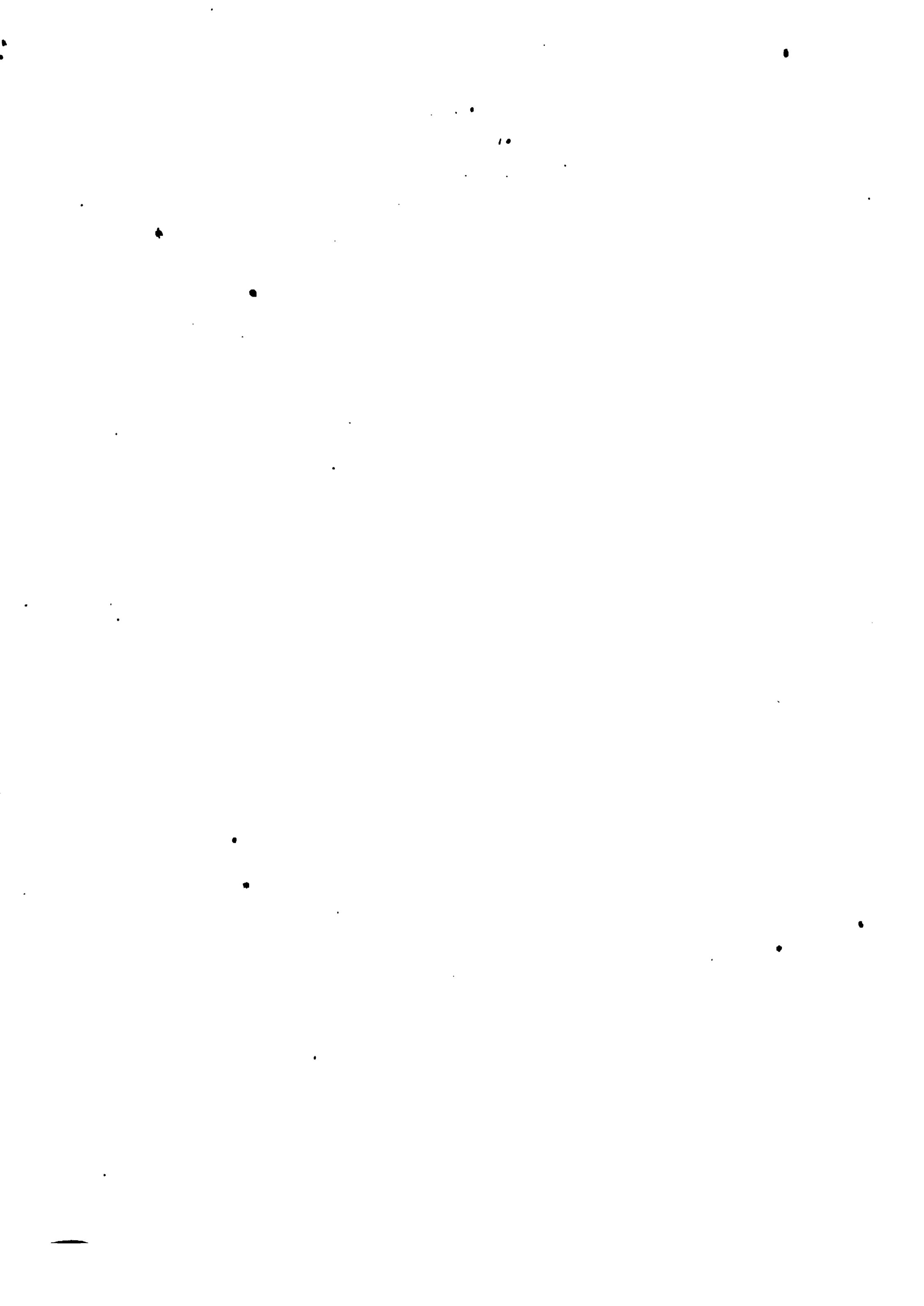
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THE
SOUTHERN PRACTITIONER

AN INDEPENDENT MONTHLY JOURNAL

DEVOTED TO MEDICINE AND SURGERY,

NASHVILLE, TENN.

EDITOR AND PROPRIETOR:

DEERING J. ROBERTS, M.D.,

LATE PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE.

VOL. XX.

JANUARY 1 TO DECEMBER 31, 1898.

**JNO. RUNDLE & SONS, PRINTERS AND PUBLISHERS.
1898.**



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SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - - *Editor and Proprietor.*

Vol. XX.

NASHVILLE, JANUARY, 1898.

No. 1.

Original Communications.

VAGINAL INCISION AND DRAINAGE IN CERTAIN CASES OF RUPTURED ECTOPIC GESTATION.*

BY WM. D. HAGGARD, JR., M.D., NASHVILLE, TENN.,

Associate Professor of Gynecology in the University of Tennessee;
Adjunct Professor of Gynecological and Abdominal
Surgery in the University of the South.

Perhaps if at the outset I distinctly declare my belief that abdominal section is, generally speaking, the preferable operation for a large majority of cases of ectopic gestation, I can more easily define the class of cases to which vaginal section is applicable.

I will confine myself to the discussion of cases of ectopic gestation ruptured in the early months, and which, clinically,

*Read at the Twenty-third Annual Meeting of the Mississippi Valley Medical Association, held in Louisville, Ky., October 5-8, 1897.

are the most frequent, pathologically are extra-peritoneal by virtue of adhesions, and surgically are simplest treated by vaginal incision and drainage.

I realize that the knowledge of the murderous nature and successful treatment of this malady were obtained by abdominal section, and that its brilliant results mark one of the greatest epochs in surgery, and yet I believe that the knowledge gained by these object-lesson operations has taught us that the type of cases I propose to discuss, which are walled off from the general cavity, are appropriate to the vaginal operation. Our lines of progress now are limited to the perfection of our surgical resources in the particular technique of a given procedure, and I repeat that without the acquaintance with this accident acquired by abdominal incision we would be unprepared to select cases for the vaginal operation.

I fear I will not have your approval in the advocacy of this route, but in the class of cases designated the repeated successes of many operators, and the increased confidence obtained from my own limited number of cases, give me the assurance to present the subject for your consideration. I hope the discussion evolved will tend to specify the cases to which it is applicable, and strengthen the growing interest in this method. Advances are only made by widening the scope of our art and specializing its limitations.

In the dramatic, clinic picture of a woman the subject of primary rupture of an ectopic pregnancy, the blanched, pulseless, clammy woman, with air-hunger, and the restlessness of impending death, is literally ebbing her life away in her own belly. And the accident whose lack of treatment found no parallel in the history of human injury has come to have but one treatment—that suggested by Harbert in 1849. I do not know of a surgical feat demanding more heroism than a life-saving emergency laparotomy for this perilous accident. The courage demanded is only exceeded by that required in encountering furious bleeding from detaching a universally adherent placenta in the later stages. The triumph of surgery in this condition has in many instances negated Lusk's immortal phrase, "The resources of surgery are rarely successful when practiced on the dying."

The necessity for abdominal section in this condition is unquestioned. Mann sums up the operative treatment of ectopic gestation as follows:

1. Before rupture, coeliotomy.
2. Soon after rupture, coeliotomy.
3. After rupture with hemorrhage, coeliotomy.
4. Encysted hematocoele, early, coeliotomy; late, colpotomy.
5. Encysted hematocoele, late or septic, colpotomy.

I desire to enlarge the recommendation for colpotomy to all cases of encysted hematocoele. It is not my purpose to open up that apparently irreconcilable discussion about the existence of extra-peritoneal hematocoele. But from the accumulated testimony of many scores of observers I must declare my belief in this occurrence. And also that nearly all pelvic hematocoeles have their origin in tubal pregnancy. It is to the pathological anatomy that I invite your attention.

Garrigues, in describing this phase, says: "The blood is at first pure and thin, but becomes coagulated, inspissated, tarry, and still later, sometimes mixed with pus and sanies. Through adhesive peritonitis the intestinal knuckles are glued together and plastic lymph is poured out and converted into tissue, forming a roof over the extravasated blood, which, in places, is finger thick, and shuts it off from the peritoneal cavity."

In discussing primary intra-peritoneal rupture, Bland Sutton says: "When the bleeding is not excessive the blood collects in the recto-vaginal fossa and floats up the coils of intestines. These, with the omentum, gradually form a covering to the fossa by adhering together so that the blood in the pelvis is isolated from the general peritoneal cavity."

Thus it will be seen that the geography of many hematocoeles make them extra-peritoneal, from an adventitious sac of inflammatory exudate, or from primary rupture, into the folds of the broad ligament. The relative frequency of this occurrence, compared to intra-peritoneal hematocoele, has been estimated as one to three.

In the majority of cases the fetus dies, and when encysted with the other products it is applicable to the vaginal operation. Here, as in all surgical work, the selection of cases is the subtlest indication of skill and the surest element of success. In

individualizing cases as to choice of route, the general requirements favorable to vaginal operations should enter. Parous women with broad, roomy pelvis being the most suitable, and in this particular condition the situation of the tumor low down is essential. As Henrotin plainly puts it, "If the tumor is low down go at it from below, if high up, from above." He also considers the route in unruptured cases according to their location. The vaginal operation is also advised by Hanks in unruptured cases, but not after rupture; he having had two uncontrollable hemorrhages by that route requiring consecutive abdominal section.

I think with the increasing number of reported cases of operation in unruptured tubal pregnancy we should be more on the alert for it, and when recognized, the simplicity of its removal by abdominal section is only exceeded by its blessed benefaction.

Encysted intra-peritoneal hematocele is differentiated from extra-peritoneal hematocele, or hematoma, by the latter being usually smaller, unilateral to the uterus, pushing it over to the opposite side of the pelvis, and unaccompanied by signs of intra-peritoneal inflammation. The tumor reaches much lower down, and is more closely attached to the uterus, simulating intra-ligamentary cysts. This attempted differentiation is only a pedantic refinement that is impractical and immaterial. The treatment of both is identical.

The fact that very few hematoceles undergoing suppuration ever bleed when evacuated, lead us to inquire if they may not be opened prior to suppuration with equal immunity from hemorrhage. The vessels are usually filled with firm thrombi, and the evacuation of such a sac is very simple.

When the hematocele has undergone suppuration its evacuation *per vaginam* becomes imperative. To all intents it practically becomes a pelvic abscess, and I think the modern employment of vaginal section for this condition has placed its *rationale* upon a sound and enduring basis. It has been computed that the mortality attending suppurating hematoceles treated supra-pubically, is between 20 and 30 per cent., and the death rate of the lower operation, with the advantages of rapid execution, absence of shock, abeyance of threatening sepsis, is practically *nil*. Adequate preparation for every contingency is a real but

silent factor in the uniform success of latter-day surgery. The resourceful man is the one who has carefully thought out and provided for any emergency. It is largely a matter of pre-arrangement, and not of intrepid genius that enables the surgeon to meet the unexpected with equanimity and ease. I have long been in the habit of preparing the abdomen and the requisites for its section when undertaking vaginal operations, with the same routine that I have a transfusion canula sterilized with the instruments in other operations of magnitude.

This forethought is not in the nature of a confessed weakness of the vaginal operation, but the recognition of an inherent contingency that should be provided against.

Cases III and IV in my series are illustrations of the occasional necessity for opening the abdomen after the vaginal incision. If the abdomen has to be opened subsequent to the vagina, nothing will have been lost in the attempt to do the operation by the safest method, without sacrifice of any structure, and without subjecting the woman to a serious abdominal operation. It has been contended that the damaged tube is sometimes left, but if a woman becomes well, remains well for several years and has another baby, her cure would seem to be complete enough. This is the history of a case in my knowledge. Kelly's twelve cases all remained well.

The diagnosis will be confirmed. The clots can be removed with greater facility and will favor the completion of the work of securing any bleeding points abdominally. The safest drainage avenue will be established, and if as Bland Sutton says: "Where blood has remained in the peritoneal cavity for several weeks after rupture it is invariably necessary to drain," it is much easier to make the vaginal opening from below than to open Douglas' space through the abdomen by cutting down on the finger, in the vagina or thrusting a pair of scissors or a puncture-machine through the vaginal vault. Bovee attributes a death after an operation for an intra-ligamentary pregnancy to inadequate glass drainage that he thinks would have been saved by vaginal drainage.

Many cases have been reported by foreign operators. Herman's classical collection of 33 cases, Martin 58, Masseti in Italy reported a large series in 1891. Many operations have

been done by Dührssen, Schröder, Péan, Elisher, Schauta and Kossman. Kelly and Watkins in this country have reported 13 and 8 respectively, Noble 2 (suppurating), Frankenthal, Reynolds, Hanks (4), Mann, Beckett, Newman, Bovee, Coe, and many others.

I beg to add the history of two cases of my own, and a third to illustrate the necessity for sometimes having to open the abdomen secondarily.

CASE I.—Mrs. Annie G., white, æt 30, multipara, the youngest two years old, uneventful labors; ten-day puerperia. Menstruation began at 13, recurred regularly with twenty-eight day intervals. Reappeared after lactational amenorrhœa of over a year in August 1896. In November 1896 she flowed for three weeks at a monthly period attended with bearing-down pains which lasted half an hour at intervals during several days, sometimes confining her to bed. It was presumably a miscarriage. The lower abdomen was tender and enlarged, and the patient supposed she had a tumor. Examination by my father, Dr. W. D. Haggard, disclosed no abnormality. Menstruation continued regular until April 23, 1897. Then it was absent for six weeks or until June 3rd, when she was seized with a sudden sharp pain while stooping over cutting out a garment. It caused her to lie down for a while, after which she resumed her work. Two days afterward the flow began and continued intermittently until the operation, June 30th. June 19th she took her bed. I saw her first June 26th. She had a dozen or more "cramping spells" since the first one three weeks before. Her temperature was 99.3°, and pulse 98. The retro-uterine pouch was filled with a tense, round, bulging mass. The uterus could be made out forward and was movable. The mass appeared as large as a cocoa-nut. She came to my infirmary June 29, and was operated on the next day. Diagnosis: Ruptured ectopic gestation. It almost seemed begging for exit. The uterus was curretted and the cul-de-sac opened. Over a pint of blood-clot was scooped out. With hand in the vagina and the fingers in the sac I could map out its relations perfectly. The sac was felt as a distinct roof over the blood-clot. A finger inadvertently made a little aperture in the sac wall. The ruptured tube could not be isolated without breaking through the adhesions, and it

was deemed best to leave them undisturbed. There was no free bleeding. The cavity was packed and the patient evinced no more disturbance than if she had had an abortion. The sac closed rapidly and she sat up on the tenth day, and was discharged in two weeks. Seven weeks after the operation she reported herself perfectly well and weighed several pounds more than before she was taken sick.

CASE II.—Martha C., colored, æt 36, multipara, youngest 11 years old. In first labor, which was instrumental, she sustained lacerations of cervix and vaginal walls. No miscarriages. She was in bed three months with "inflammation of the womb" ten years ago. Menstruation which began at the age of 12, was of the monthly type, of normal duration and regular until May 1897, when she skipped a period. In June she flowed continuously for a month, attended with cramp-like, colicky pains, and felt giddy. Flow stopped in July to recur August 14th, and continued until the time of operation, August 21, 1897. She had been confined to bed for a week under the care of Dr. O'Mohundro. She was having spasmotic labor-like pains the while, with great rectal tenesmus and difficulty of urination requiring catheterization. Temperature, 101° to 102°. Pulse, 80 to 90. I first saw her with her physician August 20th. The abdomen was enlarged, tympanitic and very tender in the left lower quadrant. She was having a constant bloody vaginal discharge. A large, tender globular mass filled the entire pelvis, fixing the uterus very far forward on the symphysis and extending in a round end between the rectum and vagina, to within an inch of the outlet. On the abdomen the mass could be discovered extending midway to the umbilicus. Diagnosis: Pelvic hematocoele from ruptured ectopic gestation, probably undergoing suppuration. On August 21 the uterus was curetted and packed with gauze before making vaginal incision into the most prominent part of the presenting tumor. The section was purposely made lower down on the vaginal wall than usual to drain the distended recto-vaginal pouch. Quantities of ill-smelling pus poured out of the opening, and the fingers introduced into the sac brought away large blood clots, some organized and others in the process of disorganization. Over three pints of pus and clotted blood were turned out.

Copious irrigation of the sac cavity with bichloride was practiced, followed by $\frac{1}{2}$ Vol. H₂O, O₂. The sac was packed loosely with iodoform gauze and the vagina filled with the same material. She had no shock; urinated voluntarily. The vaginal gauze was removed on the third day and part of the sac packing was drawn down after irrigating to facilitate its removal. The remainder was taken out on the fifth day, and the sac cavity irrigated each second day afterward, and a small strip of gauze placed in the vaginal opening, which remained patent until the cavity was obliterated, which occurred at the end of the fourth week.

CASE III.—Mrs. W., æt. 22. No children or miscarriages. No accurate previous menstrual history obtainable. On the night of November 21, 1896 she was seized with severe pain in the lower left abdominal region and fainted in her husband's clothing store. She was carried to her rooms upstairs, and I saw her half an hour later with my father. She was blanched and covered with cold, clammy sweat. Pulse 68 and feeble. She was semi-conscious and gasping. There was a soft mass to the left of the uterus. Her condition was apparent to us both and we had the sterilizers lighted while she was being conveyed to the infirmary in an ambulance. She was prepared at once and operated on at midnight. The posterior fornix was opened, and following a number of clots came a smart hemorrhage. The opening was packed temporarily, the patient immediately reversed and the abdomen opened. Evidences of old and recent bleeding were found, and it became furious when the tube was pulled up and until it was clamped and tied. A portion of the larger clots were removed and gauze drainage quickly passed through the opened cul-de-sac and the abdomen closed. The gauze packing was pulled out on the second day and a satisfactory recovery ensued. A slight stitch-hole abscess may have been the result of hasty preparation.

[ADDENDA.—Two additional cases have been operated since this paper was prepared, and as one illustrates the ease and simplicity of the vaginal route in typically appropriate cases, and the other the necessity for abdominal section, either primarily or secondary to vaginal incision, in a large number of cases, they are incorporated herein.

CASE IV.—Mrs. R., ast. 30, mother of one child 12 years of age; no pregnancies since. Menstruated normally until August 21, 1897, from which time she flowed daily until the time of the operation, December 9th. About six weeks prior to that time she was curetted by another physician, for a supposed abortion, but finding a mass on one side of the uterus, and hemorrhage continuing, he entertained the suspicion of ectopic gestation. November 27 she was confined to bed with considerable abdominal pain, attended with rise of temperature and increased pulse-rate. There was no history of sudden pain and syncope—indicative of ruptures—but the beginning of this serious illness and confinement to bed, it will be seen, was about the third month—probably the most frequent time of rupture. She came under the care of Dr. Epler, with whom I saw her on December 8th. She was rather a frail woman and markedly anemic. After recital of these symptoms, a vaginal examination revealed a softened and enlarged cervix, the fundus forward, and a considerable tense, hard mass, as large as a seedless orange, on the left side, and extending somewhat behind the uterus. Manipulation was painful, but not of that exquisite type indicative of suppurative processes. But with a temperature ranging between 100 and 101°, and a pulse of 120, the possibility of suppurative disease was borne in mind. The absence of the usual causes of pelvic inflammation and the history of temperature and profuse hemorrhage, unchecked by curettage, and associated with mass to one side of the uterus, inclined our diagnosis to ectopic gestation with rupture.

Operation was undertaken the next day. For the reasons set forth herein, on account of the location of the tumor, and the possibility of pelvic suppuration, the vaginal operation was attempted.

The uterus was curetted, and an appreciable quantity of deciduous membrane removed. Post-cervical, transverse-vaginal section revealed the bottom of the tumor so resistant that the finger could not find entrance into the cavity. A scissors, guided on the finger, was thrust into the mass, and when withdrawn a quantity of tarry, tell-tale blood welled forth. A mass of organized clots were scraped out, the sac explored and copiously irrigated with normal salt solution; after which all bleeding

ceased, and when found perfectly dry and clean, was packed with strips of sterilized iodoform gauze. The pulse progressively decreased from 120 to 105 at the first dressing on the third day, and has since subsided to normal, with irrigation and drainage of the cavity each second day, by Dr. Epler.

CASE V.—Mrs. R. Jelvess, ~~at~~ 33 years, married fifteen years, no children, five miscarriages. A year ago she was curetted for endometritis, associated with some inflammatory trouble of the left adnexa. Since then she has been perfectly well. September 25, 1897, she should have been unwell, but showed only a drop; October 1st, another drop; October 4th, a slight gush. It reappeared on the 6th, but was of a chocolate color, and continued until the operation, October 17th. She was seized a week previously by a sharp, heavy, bearing-down pain in the left ovarian region that confined her to bed. I saw her in consultation with Dr. Bromberg three days afterward. There was a mass on the left side as large as a lemon, and in connection with her erratic menstrual history, I expressed myself as believing she had an unruptured tubal pregnancy. I advised that she be closely watched, and asked to see her again. Another physician was called, who disagreed, and put her on local treatment. Three days later, or one week after her illness began, I was asked to see her again, and found all symptoms changed. She had a temperature of 101, pulse, 120 to 130. Great abdominal tenderness, considerable distention and tympany, and increased tenderness on vaginal examination. She required one-half grain of morphia per day. I then inclined to the diagnosis of pelvic suppuration, believed prompt operation imperative, and, accordingly, had her moved to the infirmary next day. Her condition increased in gravity, as the opiate was withdrawn preparatory to operation. Temperature, 103, pulse, 140, with bad expression and great pain at time of operation. After curettage the vaginal incision failed to find any pus, but the adhesions in the bottom of the pelvis were so dense that it was apparent at once that the operation could not be satisfactorily completed from below. Everything being in readiness for laparotomy it was immediately performed. A quantity of extremely fetid bloody sero-pus welled over the hand. The intestines were walled off with gauze, and the patient raised in Trendelenburg's

position. The left tube was found considerably enlarged, adherent behind the broad ligament and of a livid color, mottled in places, giving it a gangrenous appearance. It was very friably attached and easily lifted into the incision. In so doing it twisted right off the uterine cornu. There was no bleeding whatever. The opposite side was examined and found healthy. The lower abdominal zone was irrigated copiously with saline solution and the gauze-pads removed. The stump was again inspected, but found dry. I refrained from ligating it, lest the ligature might cut through and occasion bleeding, behind the thrombi that had evidently occluded the vessels. This may have been from torsion of the tube, but its gangrenous condition must have had something to do with it, because its separation from the top of the broad ligament was also bloodless. The only ligature required was one on an omental adhesion that glued up a rent in the distended part of the tube. This distention was nearest the cornu, about as large as a walnut, and when cut open contained an organized clot. The lumen of the tube, as it appeared detached from the horn, was of normal size, but the walls were greatly thickened. Gauze drainage, above and below, was employed. Perhaps the drainage through the abdominal incision caused the wound to suppurate, which was participated in by the sinus formed around gauze leading to the necrotic stump. This required sacrifice of the wound, and open treatment of both it and the sinus, which protracted her convalescence considerably, but which otherwise progressed favorably to a happy conclusion.]

If I may be permitted I will make the following recommendations in concluding this paper:

1. In unruptured ectopic gestation, the vaginal operation, if congenial to the surgeon, may be elected.
2. In non-active cases of encysted hematocoele vaginal section and drainage is the operation of choice.
3. The situation of the mass low down, and the broad, roomy vaginas of parous women are favorable to the lower route.
4. When evacuating ectopic collections *per vaginam*, preparation for abdominal section should be made.
5. In free or uncontrollable hemorrhage after removing the products of ectopic gestation vaginally, the abdomen should be opened at once.

6. When abdominal section is necessary after colpotomy, the preliminary vaginal incision (*a*) will confirm the diagnosis. (*b*) Facilitate the abdominal work, by removing clots through the vagina instead of through the abdomen. (*c*). Establish an efficient avenue for drainage.

7. The vaginal operation in appropriate cases is attended with less mortality.

312 North High Street.

THE TREATMENT OF CASES OF FEVER OF DOUBTFUL ORIGIN.*

A LECTURE.

BY PROF. WM. PEPPER, M.D., LL.D., UNIV. OF PENNSYLVANIA.

There are cases of fever in which the process seems to arise from no specific cause. They exist without local lesion, without eruption, and without bacterial cause. They last from ten days to two weeks, as a rule, and have a tendency to terminate in recovery. These cases are troublesome from the fact that they throw a condition of doubt into the physician's mind as to whether they might not be specific in character, with the diagnosis overlooked. They are more frequent in the young than in the old; for the young get fever much more easily than their elders. The majority of cases seem to fall between the years 19 and 24; they are more common and violent in hot climates; in fact, in the tropics, cases of this sort result fatally, and yet show no specific cause. They seem to be due to exposure of extremes of heat, of cold, to violent fluctuations in the temperature, to indiscretions in eating and drinking. They seem to be cases of self-poisoning, in which the system seems unable to free itself from waste products; there is disturbance of the nerve centres; especially those of heat control, but the process does not go into the formation of anatomical lesions, or of inflammatory complications. These cases of fever terminate in complete and prompt conva-

* Especially reported for the SOUTHERN PRACTITIONER, by J. HOWE ADAMS, M.D.

lescence, because there are no lesions to repair. The spleen, in some cases may be somewhat enlarged, but not markedly so, and there may be traces of albumen in the urine. In fatal cases of the ardent type of the tropics, the autopsy reveals no causes, although the Peyer's glands may be a little swollen. There is no lesion of the solids; the changes, whatever they are, take place in the blood and nervous system. The process is due to a chemical, not a microbic poison.

It is noted that the symptoms begin without any marked prodromata. There may be lassitude, headache, disturbed sleep, and malaise for a day or so, but these symptoms have not the severity or the pertinacity of commencing typhoid fever. Then develops the stadium of the disease. The temperature goes up quite rapidly, and often to a high degree, reaching possibly to 103° on the second day; in the severer type of the tropics it may reach to 105° . It is a curious fact that the initial rise may be the highest point reached in the entire fever, but the elevated temperature remains with moderate daily fluctuations, a possibility of a degree and a half in twenty-four hours. This condition of affairs will last for about ten to fourteen days, and then be terminated by a rather abrupt fall. There is copious sweating, urination, or diarrhoea, and the temperature goes to normal in a couple of days. During the continuance of the disease the nervous symptoms are mild, although there may be headache as marked and as violent as in typhoid fever. But the patient is not so drowsy as in typhoid fever, nor does he display any tendency to stupor, picking at the bed clothes, tremor, or other severe nervous symptoms. There is a curious absence of any functional disturbance. The tongue is moist, yellowish in the centre, but reddish at the edges. The appetite will probably disappear, but diarrhoea or vomiting is rather rare. As a rule, the bowels are quiet, and the abdomen not particularly painful, nor is it depressed or distended. The urine is febrile and scanty, high colored and strong in odor, containing phosphates and urates, and possibly a little albumen. Nose bleed is rare; there is no eruption, although there may be bluish, slate-colored spots of congestion under the epidermis. When sweating appears there may appear water blisters upon the epigastrium or folds of the groin. There may also exist herpes about the mouth, but it

is not common, and is slight in character. There are no complications, and there is prompt and complete convalescence. In many patients there does not exist a tendency to subsequent attack.

When we come to the question of diagnosis we are placed at once in an embarrassing position. For a week it is well to display caution, and delay treating the case with the same rigidity, as if it were typhoid fever. As the case progresses, we must treat it with deliberate indecision, endeavoring at each examination to eliminate every disease which might cause such a condition. Tests on typhoid cultures should be made, but, unfortunately, the toxine does not develop in typhoid fever until the end of the first week, at which time the typhoid eruption usually makes its appearance. So, unfortunately, at the very time that the diagnosis is wanted this test is most uncertain.

Again, we have to consider the fact that of all irregular diseases, changeable, uncertain and deceptive, typhoid fever is one of the worst. If it presented a definite clinical picture, if we could put our finger upon certain symptoms which we knew to be invariably present, we might be able to be more outspoken in our opinions. But there is not a symptom of typhoid fever which may not be wholly absent; in fact, almost every symptom may be almost in abeyance, and yet the case be one of typhoid fever.

It is better to keep the patient in bed indefinitely, than that carelessness may lead to perforation or relapse. I had a case recently in my own practice who had an obscure case of fever, but who was apparently well on the sixteenth day. He was an intelligent man, and so I went to him frankly and told him my fears and uncertainty in his case, that probably he did not have typhoid fever, but if we were mistaken it would be a pretty serious matter for him, and so voluntarily he stayed in bed until the thirty-fifth day. We will never know whether this time was wasted or not, but certainly it is safe to err invariably on the safe side.

As to the treatment, it should be of the simplest. As long as there is fever present in the patient, absolute rest in bed is imperatively demanded, with the use of the bed-pan and urinal. Many patients claim that they cannot use a bed-pan, but, as a

rule, if patiently persisted in they can usually overcome their prejudices, but in case this is absolutely impossible, then enemas should be employed. The diet should be liquid; the tongue, the abdomen, the urine and the stools should be carefully watched. The temperature, as a rule, is high enough to be brought down by the use of sponging. If it gets above $103\frac{1}{2}$ ° it is well to try cautiously one or two doses of some antipyretic, but if the temperature is disposed to stay up, bathing should be resorted to. It is well, even if malaria has been excluded from your diagnosis, to give quinine, administering it by the rectum, if the stomach is irritable. I am a great believer in the use of codeia in these cases, in one-quarter-grain doses, for the sleeplessness and irritability which come with fever. As there are no complications, this is about all the treatment that these cases demand.

ANEMIA AND ITS TREATMENT.

BY DEERING J. ROBERTS, M.D., OF NASHVILLE, TENN.

There are few practitioners of any experience who have not from time to time had to contend with anemia in some of its forms, either as a Primary or Essential Anemia, Chlorosis, etc.; or a Secondary or Symptomatic. This pathological condition characterized by a diminution or deterioration in the quantity or quality of the blood or one or more of its constituents, either as a result of no known pathological condition of other tissues or organs than the blood itself; or as a result of (a), hemorrhage; (b), inanition or want of assimilation; (c), excessive albuminuria, prolonged suppuration, long-continued lactation, chronic dysentery, etc.; or (d), toxic agents, as the absorption of lead, arsenic, mercury and phosphorus, and the toxic influence of acute and chronic infectious diseases, as typhoid and yellow fever, diphtheria, acute inflammatory rheumatism, chronic malaria, tuberculosis and syphilis. The general practitioner, the surgeon, the obstetrician, the gynecologist, and other specialists, all will continue to meet with it from day to day, and it will often prove, unless promptly and efficiently met and combatted, "the last straw that break's the camel's back." After other serious involve-

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regions or viscera have been safely tided over, and the danger is well and satisfactorily out of the way, anemia will bar our progress in establishing a successful restoration of health.

Pallor of skin and mucosa as indicated by the general and livid lips, the languor, debility and extreme fatigue at slightest exertion, occasional palpitations, dyspnoea, etc., anorexia, or possibly perverted and unnatural appetite; visible undulating pulsations of the carotids, the pulsatile peripheral veins, the occasional heart murmurs, the "diable" or venous hum over the large cervical veins, muscular and mental weakness, loss of or impaired nerve neuralgia, coolness of surface, the weak, thready or feeble pulse, together with constipation or occasionally diarrhoea make up as a whole, or in part, a clinical picture that is readily recognized by any careful observer.

Should the diagnosis, however, be in any doubt whatever, a laboratory examination will show a diminution of (1), of the quantity of blood in the body, *oligæmia*; (2), of the red corpuscles, *oligoœthemia*; (3), of the haemoglobin, *oligochromia*; (4), of the albumen, *anhydramia*; (5), or changes in the red corpuscles, *poikilocytosis*; (6), or in their size, *normo-, megalocytosis*. It is rare, however, that so thorough an examination is necessary; and many of us, especially engaged in active practice have neither time nor opportunity for such an investigation, and rely on the general characteristics presented, together with the previous clinical

A treatment of this condition iron in some form has long been recognized essential remedy, and a most excellent one it has been on many occasions; yet, sometimes it brings only temporary relief, either from the inability to get the patient to take in sufficient quantity, or from failure to secure its absorption into the circulation by the absorbents, or from bringing on other symptoms that add to the discomfort and danger, as irritability of the bowels, diarrhoea or its frequency, or from its astringent effect on the mucous lining of the alimentary tract interfering with the proper digestion and absorption of the limited food supply that is tolerated by the

More than half a century ago M. Burin-Duboisson demonstrated by chemical analysis the recognized fact, that the red corpuscles of the blood contain about one-twentieth as much manganese as iron. Nature never doing anything uselessly or unnecessarily we can but recognize it as one of the essential constituents of the blood; and when its preparation is lessened, by hemorrhages and other conditions that impair the blood, its restoration through natural channels is but slow and uncertain; so that it is quite a natural suggestion to take steps to secure its re-establishment in proper proportion. Soon after its demonstration as existing in the blood, M. Hannon and others used it with satisfactory success in chlorosis, syphilis, scrofula and other similar conditions. Kugler, in 1838, noticing that individuals employed in bleaching establishments where chlorine was largely used, and in those who handle large quantities of the salts or oxides of manganese were free from diseases of the skin, bones and glands, made a successful trial of it in scrofula. The various salts or oxides of manganese used from time to time being deficient in stability or difficult of assimilation, its use has not been altogether satisfactory until quite recently.

A little over a year ago, I received from Messrs. M. J. Breitenbach Co., of New York, a preparation new to me, bearing the name of "Liquor ferri Peptonatus, Gude," or "Pepto-Mangam, Gude," prepared by Dr. Gude, of Leipsic; Germany. The claim being made that it was a combination of iron and manganese with peptones, having decided advantages over the preparations of iron, even the albuminate in both permanency and ease of assimilation. It is clear, of a rich sherry-wine color, neutral in reaction, free from astringency, and of a pleasant aromatic taste. It is also claimed for this preparation that "it is a powerful blood-forming agent; a genuine hæmoglobino-genetic; feeding the red corpuscles with organic iron and manganese which are quickly and completely absorbed in cases of anemia from any cause, such as chlorosis, amenorrhœa, dysmenorrhœa, chorea, Bright's disease, etc."

Dr. A. P. Loomis, of New York, in a paper read before the Section on General Medicine of the New York Academy of Medicine. speaks of it most favorably and reports a series of eight cases, in which anemia had resulted from various causes,

and the number of red corpuscles had been markedly reduced from more than twenty-five to near fifty per cent., as demonstrated by careful count by proper laboratory apparatus, and that under the use of "Pepto-Mangan, Gude," in six to eight weeks they were restored to the normal or increased beyond it. He concludes the paper with the following:

"In most cases the Pepto-Mangan (Gude) had no constipating effect. Of the eight cases in which accurate notes were kept, all showed a marked improvement both in the increase in the amount of haemoglobin as well as increase in the number of red blood corpuscles. The average increase of the haemoglobin was 2.2 per cent., and of the red blood-corpuscles 1,258,000."

Dr. Hugo Summa, of St. Louis, in an article in the *New York Medical Journal*, reports having treated thirty-four cases with Pepto-Mangan, Gude, partly cases of chlorosis and partly cases of secondary anemia, occurring chiefly after sub-acute malarial and typhoid fever. Two cases of chlorosis and four of secondary anemia he gives in abstract, in all of whom there was great improvement or complete recovery.

He says: "In conclusion, I should like to state that similar good results were obtained in the remaining twenty-eight cases. It is especially worth while mentioning that no bad after-effects could be detected. In this connection I call special attention to the absence of constipation that could be traced back to the use of this preparation. The dose varied from a teaspoonful to a tablespoonful three times a day an hour after meals, either in sherry or milk, according to the individual case, especially according to the condition of the digestive organs."

Dr. Chas. O'Donovan, of Baltimore, Md., in *The Medical News* of November 27th, ult., and in April, 1889, speaks very favorably of the use of Manganese in certain cases of dysmenorrhœa. The articles are too long for even brief abstract, yet it is a well known fact that, as a rule, dysmenorrhœa, when not due to structural lesions of the uterus, or displacements, stenosis, etc., can with almost unerring certainty be traced to be dependent on an altered, depraved or deficient condition of the blood.

In my own hands and limited experience I can look back during a little over a year past with an extreme degree of satisfaction to the following :

CASE I.—*Gastric Ulcer, Acute.* Female, ~~st.~~ 53 years, school teacher, previous health good for years, was suddenly attacked with profuse gastric hemorrhage, which persisted at frequent intervals for three consecutive days. The loss of blood was alarming, and the amount and her general appearance justified the most unfavorable prognosis on the part of my associates in the case, who gave up the case as hopeless. The hemorrhage subsiding, alimentation by the rectum solely and Pepto-Mangan by the same channel for two entire weeks was resorted to, nothing per oris except the least possible amount of ice water or crushed ice to relieve thirst; then a cautious return to gastric alimentation and Pepto-Mangan by the stomach for four weeks more, when she returned to her duties. No other medicines were used other than an occasional hypodermic of morphia during the first week to allay restlessness and procure sleep.

CASE II.—*Occipto-Cervical Neuralgia.* Female, ~~st.~~ 54 years. Her mother was a great sufferer from neuralgia all her life. Aided by one of our most experienced clinicians and general practitioners, no benefit was derived from the multiplicity of remedies tried, other than brief but unsatisfactory palliation, her suffering being so great that anorexia developed to an alarming degree. After three weeks use of the Pepto-Mangan, Gude, the clouds began to lift, and ten days later she was entirely well, and has so remained since February last.

CASE III.—*General Sepsis Following Miscarriage at Sixth Month.* Mother of three children, ~~st.~~ 23 years. The physician in attendance relinquishing the case on the fifth day, on account of illness, I was called in, and I found her in the hands of a *trained* negro nurse (?), who had been washing out the uterus with a female catheter, glass, and a family (Davidson's) syringe that had been long in use. This was one of the most desperate cases of general septic infection that I have ever seen recover, and when the symptoms of sepsis began to subside, after nearly four weeks of close watching and the most careful attention, during which time the temperature reached 106.2-5°, her condition of prostration and anemia was alarming. Under the use of Pepto-Mangan, Gude, convalescence was fully established, and she is now again *enceinte*.

CASE IV.—*Bright's Disease.* Male, ~~st.~~ 58 years, Theatri.

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nist; a moderate and sometimes a hard drinker. Diagnosed February last, chronic albuminuria of several years

Amount of albumen in three samples of urine 1, 37, 42 and 33 per cent., together with epithelial casts. anemia and great debility. Was compelled to give up before the close of the season. I placed him upon treatment finding I was making no headway, I advised him to Boiling Springs. This his financial condition did not Left off all other medicines, gave him advice as to diet, red Pepto-Mangan, Gude, one bottle. This he repeated ^s to time during the summer, and, although not cured, much improved. Says that he feels better than he has for years, is strong, or seems so, and resumed his occupation has been steadily employed since the opening of the season this fall.

V.—*Chlorosis and Amenorrhoea with Dysmenorrhoea.* Frl, ast. 16 years. Menstruation only occurring at intervals of two or three months since entering her fourteenth year, anemic, irregular appetite, at times complete when menstruation did occur it was very scanty, somewhat devoid of color and very painful; headaches, back-pains, constipation, with nearly all the other phenomena seen in chloroses, showing up from time to time. Had been unable to school the last two years, though very anxious to do so. Tried many other measures with but little satisfactory or permanent improvement, I was much gratified at the results of red Pepto-Mangan, Gude, which I commenced in July last. Three periods at intervals of twenty-eight days have followed with the greatest satisfaction, each one increasing in regularity and unattended with pain, and she seems now, from her greatly improved and vigorous condition, her appetite, her ruddy complexion, and gradual gain in weight from 76 to 103 pounds, to be on the way to recovery, if not entirely relieved, and expects to commence her schooling with the incoming year.
In these cases neither the haemoglobin nor the red corpuscles were estimated by laboratory methods—nor was there any need. The progress and its results, have been so plain that "the runs may read."

I could cite other cases of both primary and secondary

anemia in which I have had equally good results, but as they were not so marked, so severe and so critical, I will desist, concluding by fully concurring with the statement that is made, that "this preparation, Gude's Pepto-Mangan, when taken into the stomach undergoes no chemical change whatsoever. Being practically predigested, it is readily absorbed by the mucous membrane of the stomach, the process of assimilation is easy, and the metals are taken up by the blood immediately."

December 6, 1897.

Correspondence.

CENTENNIAL ECHOES.

* * * * *, TENN., Nov. 26th, 1897.

DR. DEERING J. ROBERTS, Nashville, Tenn.

My Dear Sir:—For fear you might write me about the first of January, 1898, and say *please remit*, I now enclose to you a \$1.00 bill for subscription to the SOUTHERN PRACTITIONER for the year 1898. Twelve months ago I wrote you sending in my pay for the journal and telling you I would call and make your acquaintance when I visited the Exposition. The reason that I did not, was that I was so badly scared I forgot it. I attended the Tri-State Medical Society in October, and one night I ventured out to the Exposition all alone, and being a "Hill Billie" of first rank I traveled by instinct, not reason, and I soon found myself gazing into the mysteries of the Moorish Palace; I soon explored the lower department and then I ascended a place called the Horror of Horrors. I went into a cave and peeped through a hole and there I saw the Devil throwing men and women off the bluff on that old English Razor. The most horrible sight I think I ever saw; I could not stand it. I turned and walked down and out, and walked for some time with my head bowed down in deep study, and presently I butted my head against a building and looked up and it was the entrance to a place called the Chutes. I went in and

walked back to where I had to deposit my ticket and I asked a gentlemen: Was there any danger in that thing? As a matter of course he said no. I did not like the thing much for I am a little particular what I ride on up in the hills, as I am five feet six and one-half inches in height, and weigh 225 pounds. Finally, I went up in the car where there were some ladies and gentlemen I did not know; and in loading the boat one lady sat in front and one behind me, and I got a seat in the middle between them and when they turned that thing loose I would have given all of my worldly possessions to have been out. I got a death grip on the railing on each side, fell backwards in the woman's lap behind me and she caught my head between her knees and held me tight. I thought of the Devil I had just seen, thought over my past life, my wife and baby at home, etc., yet there I was with my head between a woman's knees running at a rate of two miles a minute into eternity. Don't you know that I felt bad. I actually caught my breath so sudden that I inhaled so much air into my lungs (the thing was running so fast I could not expel it), that there was such a great distention of the abdominal muscles that ever since I have been compelled to wear an Empire elastic abdominal bandage for fear of umbilical hernia. I was so excited that I failed to tell the lady that she ought to ask my pardon for holding my head so tightly. I have this to say in conclusion that I am an admirer of the slide and ox-cart, but deliver me from shooting the chutes any more so long as I may live.

Success to the SOUTHERN PRACTITIONER for I am an admirer both of the editor and journal.

Yours respectfully,

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PHTHISIS; WINTER COUGHS.

DEAR SIR:—The treatment of phthisis, or pulmonary tuberculosis, is ever of interest to the practitioner of medicine; at this time of the year especially so. Like the poor, "it is always with us." So many specifics for this affection have from time to time been heralded to both the profession and the public that

it is doubtless true that thousands of human lives have been sacrificed while demonstrating their worthlessness. It has time and again been proved that the best results in this disease can be attained by the use of what I may term "standard" remedies, and not in the waste of time in experimenting with serums and other impositions on the medical fraternity.

Prominent among the standard remedies referred to stands one that may, with truth, be called "Nature's Own Remedy," in as much as it is obtained from the very bowels of Mother Earth—Petroleum.

The Angier Chemical Co., of Boston, have placed this remedy in our path in palatable form, combining with it the well-known hypophosphites. This *Emulsion* supercedes cod-liver oil in more ways than one, not the least of which is that it is palatable; consequently, does not disorder digestion or produce nausea. This, in many cases, is of the greatest importance. In regard to its therapeutics it may be said that it is antiseptic, antispasmodic, stimulant, nutrient and expectorant. By its use the cough is at once ameliorated, the perspiration is diminished, the patient is strengthened, thereby enabling him to expectorate the loosened mucus with greater ease; foetid orders are made less so, and frequently the consumptive steadily improves and regains health. In the first stages of this disease it is certainly curative, as can be verified by any practitioner giving it a faithful trial.

In the commoner coughs, often spoken of as winter coughs, even when not of tubercular origin, and also in bronchitis, *Angier's Petroleum Emulsion* is invaluable. Here it exerts the same action on the cough, expectoration and mal-nutrition, as in the former conditions, and other medication is rarely required. In the vague and ill-defined chest pains of those recovering from an attack of pneumonia, pleurisy or grippe, this preparation is specially indicated. The improvement in digestion, which always follows its use, is one of its prominent features, and it is therefore also adapted to all forms of mal-nutrition in old or young.

It is not my purpose in this paper to quote particular cases treated, but simply to direct attention to *Angier's Petroleum Emulsion* those who may not have learned of it, and especially to those physicians who are prescribing cod-liver oil, but who

desire something more efficacious and more acceptable to the patient's palate and stomach.

J. D. ALBRIGHT, M.D.

Pottsville, Pa.

Selections.

AN EFFICIENT TREATMENT FOR RHEUMATISM AND ALLIED AFFECTIONS.—For the past seven years I have constantly prescribed Tongaline, and the longer I do so the more thoroughly I learn to rely upon its efficacy for the diseases for which it is indicated. I had always secured good results from its administration, but during the past year these have far surpassed all my expectations, especially in such serious and obstinate troubles as rheumatism, la grippe and sciatica. These really wonderful results I consider due to my methods of administering the preparation, and I believe it to be to the advantage of every physician to understand just what these methods are. For instance, when I have a very severe case of inflammatory rheumatism, a case where the swelling is great and the pain almost beyond endurance, together with a high temperature, I commence with a teaspoonful of Tongaline every hour in a wine-glassful of water just as hot as the patient can bear it. I follow the dose with as much hot water as the patient can take. In from four to eight hours the temperature is invariably reduced and the patient falls into a refreshing sleep. Under this treatment, within six hours I have seen the temperature drop from 104 degrees to 100 degrees and the pain disappear as if by magic. Furthermore, I have time and time again witnessed the same results in severe cases of la grippe. The more severe the case, whether of rheumatism, la grippe, gout, sciatica or lumbago, the more I push the Tongaline by giving smaller doses at closer intervals and invariably in hot water in place of cold. In cases where the stomach rebels and Tongaline cannot be administered in that way, I have the affected parts, say the inflamed joints in a case of rheumatism,

or the lumbar region in that of lumbago, sponged with alcohol or soda water, in fact, I prefer the latter, then rubbed with Tongaline and apply heat by a hot-water bag, or by some other convenient method. It is really surprising how quickly and thoroughly the Tongaline is absorbed and how effective its action when it is administered in that manner. In la grippe, when the stomach is very irritable, as is so often the case, you will find that Tongaline applied locally, say under the inner side of the thighs and under the arms on the side of the chest, will eradicate the trouble more quickly and thoroughly than any other remedial agent.

I call to mind a case of sub-acute, localized rheumatism of the knee, which had defied every kind of treatment generally prescribed for that condition, such as the potassium salts, salicylate of soda, tonics, blisters and counter-irritants. I decided to try Tongaline in the manner above described. By the third day the pain had almost disappeared and the swelling had been reduced two-thirds at least. The improvement was uninterrupted and in ten days the patient pronounced himself cured. It is certainly somewhat remarkable to see an old, chronic rheumatic patient, who has been bedridden for months, able to walk comfortably, as if by magic, and due entirely to the effects of Tongaline. On several occasions, when in the company of medical men and the subject of rheumatism was introduced, I have mentioned this treatment, and stated that in my belief we had in Tongaline almost as thorough a specific for rheumatic and neuralgic diseases as quinine was for malaria. Some of the physicians remarked that they had not found Tongaline of so much value, whereupon I replied that the fault was in their manner of prescribing the preparation. I explained to them how Tongaline must invariably be pushed to the extreme in certain obstinate cases and always administered in hot water. Since then I have had the pleasure of hearing one of these physicians state that he is as firm a believer in the efficacy of Tongaline for rheumatism as I am, and that the reason he had never appreciated the preparation so thoroughly was because he had never used it in sufficiently large quantities. In conclusion I would state that if any reader of this article doubts the efficacy that I have ascribed to Tongaline in the more severe forms of the diseases for which

it is indicated, just let him push the drug until the full physiological symptoms are secured, and I feel assured that he will agree thoroughly with my statements.—*C. W. Canan, M.D., of Orkney Springs, Va., in St. Louis Medical and Surgical Journal.*

ACUTE INTESTINAL OBSTRUCTION.—McArdle (*Dublin Journal of Medical Science*, Oct. 1, 1897) in concluding a paper on this subject offers the following suggestions in case of difficulty in finding the site of obstruction: 1. Follow the engorged coil of intestines upward and downward until the point of obstruction is reached, or turn out all the intestines. 2. Remove all fluid from Douglas' pouch and the loins, by irrigation with sterile water. 3. Restore the color of the bowel, and establish peristaltic movements by heating with neutral saline solution. The removal of the primary cause of intestinal obstruction is not always followed by relief of the symptoms. 4. Should there be difficulty in returning the intestines, elevate the pelvis in the Trendelenberg position, or if necessary, open and wash out. 5. Before all, and above all these conclusions, the following rule should be observed: “When a surgeon is called to a case of complete obstruction of the bowel, with evidence of peritoneal effusion, it is his duty to operate at once.”—*Journal of the American Medical Association.*

BICYCLE ABUSE is the title of a very excellent editorial in the *American Medico-Surgical Bulletin*, which concludes as follows:

What is in store for these racers? A coiled spring within its range of strength can stand a definite amount of strain before being permanently damaged. The human body is very much like a coiled spring in its power of recuperation. It sometimes rallies from exceedingly severe attacks of disease with but few marks of permanent injury. When the vital coil is overstrained it leaves the system a wreck. Every great strain weakens it. In all the cases where the constitution of the rider was powerful enough to resist the strain there will be a slight weakening of vigor, but in some there is sure to be overstrain, and they will

go through life mere wrecks of their former selves. Some of them received nothing for their week's agony, a few received \$75 to \$500 in graded amounts, and the winner got \$1,500. The few organizers of the show pocketed about \$20,000 out of the \$40,000 taken in at the door. The crowd paid its money freely to see and gloat over such an agonizing scene. They shouted like madmen at the poor suffering fools before them, and jeered at those whose hallucinations made them talk wildly as they rode along. "Give us less talk and better riding" was the answer of the sport-mad crowd to the delirious talk of the riders. A prize-fight, a Spanish bull-fight or a contest of gladiators in the arena of the Coliseum at Rome would be royal sport as compared with so gross a degradation of the most health-giving mode of exercise of the nineteenth century. It is to be hoped that this is the last exhibition of the kind that will ever occur in this or any other country.

SHOULD THOSE WHO ARE DISEASED MARRY?—"Should those who are diseased marry?" is a question often asked and discussed. It is impossible to treat the human race as we do our beasts; we kill diseased cattle; entire herds of valuable Jerseys have been destroyed because they were found to be tuberculous.

It would be equivalent to war if such methods were adopted in an attempt to stamp out tuberculosis in the human race. Yet we must realize that efforts stronger and more logical than have been and are now being used must eventually be employed for this purpose. Either laws must be passed prohibiting intermarriage between healthy and diseased persons, or compelling the isolation of all who are diseased, irrespective of class, condition, and sex.

This editorial was not written to discuss the best methods of obliterating tuberculosis, but to impress upon the profession the necessity of pointing out dangers which their patients cannot discover. Those who inherit tubercular tendencies should be carefully schooled in habits which will best enable them to guard against the disease; many who are to-day beyond the hope of recovery would still be on the safer side had they been warned in time. Change of climate, quitting the more dangerous

regions for localities more favorable to their condition, has by itself saved many who, had they remained in their former environments, would have died.

Intermarriage between healthy and tubercular persons should never be sanctioned. The family physician can warn parents of the dangers of such unions without offending or appearing officious.—*Louisville Medical Journal.*

SUDDEN DEATH DURING LABOR.—Dr. Mary E. Hagadorn, in *South. Cal. Pract.* (Vol. XII, No. 7), reports a case of a primipara, who during the period of pregnancy was well. The urine was examined several times, but always with negative results. While the patient was in labor (bag of water having ruptured, with head causing bulging of perineum) she dropped into a refreshing sleep, when suddenly there were two stertorous respirations. The face instantly changed from a good rosy color to extreme pallor; the lips became deeply cyanosed and the ears and the entire fingers became a livid blue, the pupils minutely contracted, and the radial pulse could not be detected. There was no dyspnea; but an instantaneous cessation of respiration. Restorative treatment was resorted to, without avail. No satisfactory autopsy was allowed, and the cause of death was not ascertained.* She was delivered of a deeply cyanosed, but living boy, weighing $6\frac{1}{2}$ pounds. There was no blood in the cord when it was cut.—*American Medico-Surgical Bulletin.*

CAMPHOR IN HEART-FAILURE.—C. C. West recommends the hypodermic administration of camphor, the following solution being employed:

Camphor, 1 part.

Olive-oil, 10 parts.

Inject two syringefuls into each arm (about 5 cubic centimetres altogether).

A needle with a somewhat larger bore than that commonly employed is necessary. With the ordinary needle the injection

*Was it not embolism occluding the arteries supplying the respiratory centres, or a hemorrhagic infarct involving the same areas—most probably the latter.—ED. S. P.

is difficult, because of the thickness of the oil. In a case in which the patient had a number of times been absolutely pulseless and apparently lifeless, its use was followed by the most gratifying results. It is given throughout the illness, whenever the pulse fails, to supplement other cardiac stimulants.—*Philadelphia Polyclinic.*

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plain, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Editorial.

OBITUARY.—JOHN BERRIEN LINDSLEY, A.M., M.D., D.D.

At the regular meeting of the Nashville Academy of Medicine held in its hall, Thursday, Dec. 9th, Dr. W. D. Haggard, Jr., offered a resolution which was adopted that a committee be appointed to draft suitable resolutions in regard to the death of Dr. J. Berrien Lindsley. The President appointed Dr. W. D. Haggard, Jr., J. R. Buist, and Paul F. Eve. Dr. T. G. Shannon moved that the next regular meeting night of December 16th be observed as a memorial meeting, and that some member of the Academy be selected to prepare a brief memorial of the deceased. Dr. Deering J. Roberts was selected, who, on the evening of December 16th, in the presence of a large attendance of the members of the Academy and other physicians and friends of the deceased submitted the following:

John Berrien Lindsley, A.M., M.D., D.D., born in Princeton, N. J., October 24th, 1822, died at his residence in this city, December 7th, 1897, in the 76th year of his age. Descended from the Lindsleys who were among the first settlers of Morristown, N. J., and the Lawrences who settled at Hell Gate, Long Island in 1660, his ancestors on both sides emigrating to this continent on the downfall of the Cromwell party to whose cause they were firm adherents. His name he took from his mother's grandfather, John Berrien, Chief Justice of the Province of New Jersey prior to the American revolution, who was of French Huguenot origin. If tracing back one's lineage has any bearing on nobility he was not lack-

ing, but whether of inheritance or acquirement, it can be truly said of him, he was one of nature's noblemen.

His father, Philip Lindsley, D.D., came to this city in 1824, after having declined the presidency of the great college of New Jersey, believing that his labors would be more redundant of good to his fellow man in building up a great university in the Southwest, and for twenty-five years he labored assiduously, earnestly and most successfully, in placing in existence an institution that has done much indeed to establish the reputation of this Athens of the South, and many of our ablest men, by his efforts have been enabled to take their stand with the most able, the most enlightened and most learned of the world. He made this city and state the home and abiding place of universities and colleges.

My esteemed friend and respected teacher obtained his early education at home, at the feet of his revered and most able sire, and it was so thorough that he was able in three years to accomplish the curriculum of a four years' course, receiving the degree of B. A., from the University of Nashville in his 18th year, and that of M.A., three years later. Possibly it was from this early home training, that he derived that modesty of demeanor, that reliance of self that marked his long and useful life. Mixing more with the youth of his age in the common or public schools of the day might have made him more aggressive, more assertive of his personal rights and inherent or acquired rank, but it could not have made him more lovable, more humane in all that pertains to the word, and might have diminished that woman-like tenderness and kindness of heart that was one of his prime characteristics. It might have advanced his own career to a greater degree politically or socially, but could not have given him a larger clientele of warm and loving friends which he in the marked unselfishness of his nature so greatly esteemed and deserved. He could well say.

"Let him have fame who will;
I have no wishing for it.
But I would ask to be remembered
By that chosen few, whose lives
Have mingled long with mine
In a sweet blending. This granted,
I care not who is trumpeted
In this year, next, or down through all the ages."

His early medical education was received at the hands of Dr. W. G. Dickenson, an eminent practitioner of this city in the early part of this century who was a man of noble impulses, and who did more in surgery in his day than any of his associates, being a Brigade Surgeon in the Florida war, a sturdy New Englander who became thoroughly identified with the South. From his office Dr. Lindsley matriculated and attended lectures first in the University of Louisville, and subsequently in the University of Pennsylvania, receiving his degree of M.D., from the latter.

His medical studies having been completed so far as collegiate instruction required, he turned his attention to the ministry, having this idea in view and qualifying himself in medicine in furtherance of this

object rather than the practice of medicine. He was ordained by the Presbytery of Nashville in 1846, and served for some time as the stated supply of the Hermitage and Smyrna churches, and also for a year after he worked for the Board of Presbyterian Missions. On the occasion of the separation of the church of his identification, he allied himself with that branch now known as the Cumberland Presbyterian Church, but never afterwards took an active part as a minister, finding other work in which he believed he could do good to his fellow-man.

For the twelve years succeeding 1838 he was the private pupil of Gerard Troost, a German by birth, but who was one of the pioneers in the advancement of American science, who on his death-bed committed his valuable collection to the care of his pupil, who subsequently disposed of it in 1874 to the Library Association of Louisville, after many and repeated efforts, which unfortunately proved futile, to have this grand collection held in the State of Tennessee.

In 1850, Dr. Lindsley organized the club which became the Medical Department of the University of Nashville. He was in the language of his able associate, the late W. K. Bowling, the founder of the Medical Department of the University of Nashville. Yes, he was the pioneer teacher of and organizer of the first medical school established in this State. He was the first dean of the first medical school in the State, and for twenty-three years its Professor of Chemistry. Many, oh! how many of the alumni of this school have preceded him to the great beyond; yet, some survive, and like myself, well remember the earnestness with which he taught the dry details of the branch allotted him.

Early recognizing the fact that he was connected with a great medical institution whose possibilities were incalculable, he spent the interregnum between the sessions of 1852-53 and 1858-59, in the medical schools of Germany and France, still an earnest and indefatigable student, and to this training, and those advantages may be attributed much of the marked elegance and literary finish of his after-work as a teacher and writer.

Dr. Lindsley was largely instrumental in securing the erection of the beautiful and massive stone buildings which form so conspicuous and lasting a part of the University of Nashville, contributing largely from his personal means to secure their erection. In 1855 he was chosen Chancellor of the University of Nashville, and under his management it entered on the most successful career of its existence, a career whose success was only broken by the great maelstrom of civil war that engulfed this country from 1861 to 1865. During those dark and terrible hours, he with his able associate, Dr. Bowling, were indefatigable in their efforts to preserve buildings, grounds and paraphernalia intact to hand down to their successors. How well this work was done the evidence is before us.

In 1867 Dr. Lindsley organized the Montgomery Bell Academy, in accordance with the ideas of its founder, bringing the school to a high state of efficiency at once by the power of his presence and influence. In 1870 he resigned, recommending Gen. E. Kirby-Smith as his successor.

In 1870 he took part in forming the "Tennessee College of Pharmacy" of which he had been the Professor of Materia Medica during its existence since 1876.

In 1876 he was elected City Health Officer; and served as such for four years. During his term of office the great yellow fever plague of 1878 swept over the South, and that it did not reach Nashville was due to the heroic efforts of Dr. Lindsley as City Health Officer. The city was made as clean as a swept floor, and all sources of malaria were banished. By his careful management the death-rate of the city was materially reduced and plans of sanitation introduced which have been of incalculable value since. Persistent, tireless, and most indefatigable in his work, he developed an enthusiasm in his subordinates, and placed the Health Department of this city on a footing so firm, so correct, and so satisfactory that it has been running now for two whole decades most successfully and most agreeably by reason of the grand impetus he gave it.

In 1880 he was elected Professor of Sanitary Science and State Preventive Medicine in the Medical Department of the University of Tennessee, and served most acceptably until advancing years and more pressing duties caused him to again relinquish his most ardent desires of advancing the interests and welfare of the younger generation.

He was at the time of his death the Secretary and Executive Officer of the State Board of Health, a position which he had filled for five years most satisfactorily, having been re-elected in the spring of the current year for another term of five years at an increased salary. His services were ever recognized as able, practical, thorough and systematic. During his term of duty several epidemics have visited or severely threatened our state, but this efficient executive officer of the board was always found alert, watchful and tireless in his energies to suppress or prevent. At the organization of the State Board, and when unendowed, he served it for two years without salary or compensation.

A firm and ardent advocate of organized medicine he became a member of the Tennessee State Medical Society in 1845, and but few of its meetings have been held without his active participation therein, and his voice and vote were always found on the correct side of all questions in behalf of honorable regular medicine. His services while Secretary were both able and efficient. The various local regular medical organizations that have existed from time to time in this city and county always found in him an earnest and active supporter, and he was at the time of his death a member of the Nashville Academy of Medicine. He was also a member of the American Medical Association since 1851, serving frequently on its Committee on Public Health. He was a fellow of the American Academy of Medicine; a member of the American Public Health Association and for a number of years its Treasurer, and one of the Southern members of its Executive Committee; a charter member of the American Chemical Society; a director of the National Prison Association; a corresponding member of the National Prison Association, of France; a member of the Numismatic

and Antiquarian Society, of Philadelphia; a fellow of the Historical Society of London and America; a life member of the American Tract Society and the American Bible Society; and for thirty years was an active member of the Tennessee Historical Society. He was President of the Robertson Association, of this city, an organization that worked so nobly in our devastating cholera epidemics. In 1856, the degree of D.D. was conferred on him by the College of New Jersey at Princeton, over which his father had presided at the time of his birth.

He was always an earnest friend of popular education, serving for six years as a member of our City Board of Education, and was largely instrumental in putting it on a practical and satisfactory basis. In 1866, a most critical period in the history of our public schools, he was the Superintendent, and so boldly faced opposition in the city government as to effectually warn ward politicians that the schools of the city were above and beyond political manipulation. In 1875 he was appointed by Gov. Jas. D. Porter, senior member of the State Board of Education, and was its Secretary since its organization.

In literature he was by no means a laggard, and his able, versatile and polished pen has left most durable tracings. Many able articles from him appeared in "The Theological Quarterly" of his church. Those on African Colonization attracted much comment, were largely reprinted, and had a wide circulation. His series of articles on Cumberland Presbyterian Church history attracted much attention from the scholars of his church. An anonymous article from his pen entitled "Our Ruin," led to the organization of the Tax-payer's Association, and the anomalous culmination of placing the City of Nashville in the hands of a receiver in July, 1869. In 1886 he edited and published at considerable expense to himself "The Military Annals of Tennessee" that will afford a rich field for the future historian. He was also the author of the "Encyclopedia of Tennessee History," an exhaustive and elaborate compendium of the civil, political, commercial, industrial, educational, literary, religious, social and military history of our State.

He was married February 9, 1857, to Miss Sarah McGavock, a daughter of Jacob McGavock, of this city, and a granddaughter of Hon. Felix Grundy. His wife, together with his five children, Miss Louise Lindsley, Mrs. Robt. Kent, of Virginia ; Mrs. Percy Warner, of this city. Miss Annie D. Lindsley and Dr. J. Mac Lindsley survive him. To them I can but say words cannot express our sympathy—their loss is irreparable, but they can have the satisfaction of knowing that it is his gain. I can well imagine him making use of the words of one of the most eloquent orators of the Volunteer State.

" But the storm howls no longer, the desert is gone,
The battle's fierce strife no more hurries me on;
The tempests no more lash the ocean's calm breast,
And the clouds float in beauty afar to the West.
I move through Life's bowers full of bliss and of love,
Looking fondly to earth, and with transport above;
And an angel soft whispers, "The Lord sets thee free

To come to me! come to me! dwell here with me!

* * * * *

Hope beckons me on with its whispering tale,
To walk through, all hopefully, Life's pleasant vale,
And I come to Thee, Lord, unprisoned and free,
And I bless Thee, ah! bless thee, for mercy to me."

In concluding this imperfect sketch, and feeble effort at a memorial, that I would have preferred had been entrusted to abler hands than mine, I can but say, in which I feel that you all will concur, that medical science has sustained a loss of marked degree. Like many a man of studious habits and of an investigating mind, our departed friend was of quiet tastes and most modest demeanor. From the time of his graduation from the University of Nashville, over half a century ago, to the day of his death, he has been an earnest, eager and energetic laborer in his chosen field of science and education. He dedicated his life to this work, not for his own gain, but for the good of his fellow-man, and the results of his well-directed energies will be felt for many years to come. An ardent devotee of science and education, he was a most earnest man, and rarely, if ever undertook a work that he did not push with a singleness of purpose and most untiring efforts to a successful issue. Modest, kind-hearted, liberal and generous, may his name and his deeds long hence be a hallowed memory with the medical men of this city, state and nation. Taken off suddenly and unexpectedly, although at an advanced age, succumbing to the shock, excitement and baleful influences of the fire-demon, as a result of his arduous efforts to protect his roof-tree, his household gods and those he loved, he was not unprepared, but has entered into the presence of his Master, and we may satisfactorily hope has received the grand and glorious welcome, "*Well done, thou good and faithful servant!*"

The following resolutions offered by the Committee were adopted:

WHEREAS, The Nashville Academy of Medicine has assembled on this occasion to pay tribute to the memory of the distinguished Dr. J. Berrien Lindsley; therefore be it

Resolved, That the official organization of the medical profession of Nashville take cognizance of the death of the founder of medical education in this city with peculiar and profound sorrow.

Resolved, That, as many of us honor him as his students, we feel an individual and personal loss as well as a collective and associated bereavement.

Resolved, That his long and worthy life as a scholar, teacher, medical journalist, historian, hygienist, minister and philanthropist, his career has been unusually blessed and unselfishly useful.

Resolved, That as the executive officer of our State Board of Health, his timely and efficient services have wrought incalculable good that we, as physicians, can most fittingly appreciate and revere.

Resolved, That his wide scholarly attainments, consistent Christian character, gentle and lovable personality, dignified and noble bearing, earnest and righteous living, will be an inspiration to his juniors and a criterion for his peers most worthy of emulation.

Resolved, That the profession of Nashville has suffered the loss of one of its most illustrious adornments, who for half a century has been numbered among her most brilliant exponents, and who being dead we honor with all the fealty of an appreciating and affectionate profession.

Resolved, That the Department of Public Health of the State, and the various institutions with which he was associated have sustained a deplorable loss, rendered so by the very ripeness and wisdom of his counsels.

Resolved, That this expression of our exalted regard for our honored dead be spread upon the minutes of this body, and a copy of these resolutions be presented to his family, in whose bereavement we so deeply participate.

J. R. Buist, M.D.,
PAUL F. EVE, M.D.,
W. D. HAGGARD, JR., M.D.,
Committee.

Touching and appropriate remarks were made by Dr. W. D. Haggard, Sr., who had known the deceased for more than half a century, and Dr. James B. Stephens, who was one of the graduates of the Medical Department of the University of Nashville in its earliest days. A unanimous request was made by the Academy to have the memorial and resolutions published in THE SOUTHERN PRACTITIONER.

THE BEGINNING OF OUR TWENTIETH VOLUME.

In commencing our work for another volume, we desire to extend to our many readers and friends our most sincere and heartfelt thanks for their continued appreciation of our JOURNAL, and to assure them that our interest and zeal in its management continues unabated with its age and increases with its steady and substantial growth. We enter upon the new year with the most flattering and gratifying auspices, and with a larger number of readers and a more substantial patronage than at any time in its remarkably successful history, and can look back with no little degree of pride and satisfaction on the completed volumes of the past NINETEEN YEARS; not so much at our own efforts, but that we have received such a generous, cordial and substantial support from our professional brethren. To them, and to them alone, are we indebted for our gratifying success, and we extend to them our most sincere thanks, and wish them all a *Happy and Most Prosperous New Year.*

PUBLIC HEALTH AND NATIONAL QUARANTINE.

In the *Nashville American* of December 27, 1897, appeared the following special, with which we are thoroughly in accord and do most heartily endorse:

NEW ORLEANS, December 26, 1897.

Dr. Harralson, of the Mississippi State Board of Health, who was in

charge at Biloxi during the recent epidemic, to-night gave it as his opinion that if the quarantine stations remained at Ship Island, there would not be 500 visitors at Biloxi next summer, but if put back at Chandeleur and this fact advertised to the world, coupled with the statement that all danger from yellow fever had thus been removed from the coast, Biloxi and all the other coast towns would be crowded with visitors, as never before in their several histories. A State quarantine at Ship Island would be no less menacing than a national one there, hence the absurdity of the published rumor that the State Board desires Ship Island for a quarantine station.

"I am in favor," continued Dr. Harralson, "of the United States Government assuming control of maritime quarantine, as suggested in the bill of the American Medical Association and indorsed by the American Health Association, establishing a bureau of public health, but I am not in favor of extending the powers of the Marine Hospital service, which was responsible for the admission of yellow fever at Key West and Tampa in 1887, Biloxi in 1886, Brunswick, Ga., in 1893, and Ocean Springs in 1897.

"We can never expect any improvement in the health affairs of this country as long as they are administered by a department of the Government, the prime function of which is the looking after the finances of the nation. Gov. Bloxham, of Florida, fully expresses my views when he says: 'By what decree of providence, or of common sense is it ordered that the financier of the Union, the Secretary of the Treasury of the United States, burdened with care beyond all endurance by environment and education, harnessed to a most potential and engrossing charge be made the arbiter of matters of life and death to countless thousands. Who are more unfitted to deal with the great details of public health than the stewards of the nation's wealth? And why relegate to a mere department detail division, a responsibility second to none, and one which should be confided to none but the ablest and most experienced?'"

Dr. Harralson was on the ground and in the "thickest of the fray" last summer and knows whereof he speaks. Yes, Public Health matters have never received that consideration at the hands of our Congressional Solons that their importance so imperatively demands. However we have strong hopes that more practical measures will be placed on foot before this good year is very old than have ever as yet been resorted to—measures that will prove reliable and will accomplish the desired results.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

This very practical and earnest working organization held a very agreeable and satisfactory meeting at St. Louis, Mo., November 9th, 10th, and 11th ult. We had prepared a brief abstract of the work done, but regret to say that it has been crowded out by pressure of other matters. However, a very excellent report of the meeting was published in the

Journal of the American Medical Association in the two numbers published November 20th and 27th. If you are not a member of the National Association, or a subscriber to its Journal, which you ought to be, the small amount of twenty cents sent to its office, 61 Market Street (Occidental Building), Chicago, Ill., will secure for you the two copies containing said report.

Our talented and brilliant fellow-townsman, Dr. Richard Douglas, Professor of Gynecology and Abdominal Surgery in Vanderbilt University was elected President; Vice-Presidents, Dr. H. H. Mudd, St. Louis, and Dr. J. A. J. Goggans, of Alabama; Secretary, Dr. W. E. B. Davis, Birmingham, Ala.; Treasurer, Dr. A. M. Cartledge, Louisville, Ky.; Council, Dr. George Ben Johnston, Richmond, Va.; Dr. Louis M. Tiffany, Baltimore, Md.; Dr. Lewis S. McMurtry, Louisville, Ky.; Dr. George J. Engelmann, Boston, Mass., and Dr. Ernest S. Lewis, New Orleans, La.

The next meeting will be held at Memphis, Tenn.

SEWANEE MEDICAL COLLEGE.

The regular annual commencement exercises of the Medical Department of the University of the South—Sewanee Medical College—were held on the morning of December 16th last in St. Augustine's Chapel, Sewanee, Tenn., a good audience being present.

John S. Cain, M.D., Professor of Theory and Practice of Medicine, and Dean of the School, delivered the charge to the graduating class. It was full of wit and humor, a humor that was at times almost grim, and of strong, practical common sense that gave evidence of his scholarly attainments and wide experience. After Dr. Cain's very happy address, certificates of graduation in special schools were awarded, and the degree of Doctor of Medicine was conferred upon the following gentlemen and diplomas presented to them:

E. L. Barryte, B. A., Russia; R. E. Brake, Ohio; W. A. Brown, M. D., Canada; H. H. Chandler, Virginia; C. W. Gaskell, England; F. Gruver, South Carolina; C. A. Goodchaux, Louisiana; W. J. Hayes, North Carolina; W. J. Kinder, Missouri; M. W. Levert, Louisiana; J. T. Little, Pennsylvania; H. J. Logan, Georgia; J. W. Lucas, B. A., Mississippi; L. A. Mallicoat, Georgia; W. E. Noblin, Mississippi; J. Pettyjohn, Georgia; W. B. Pierce, Mississippi; J. O. Ringold, Mississippi; W. W. Slayden, Tennessee; J. W. Smith, West Virginia; R. D. Smith, South Carolina; F. H. Sparrenberger, New Jersey; G. A. Wilford, Pennsylvania; I. C. Young, Tennessee; A. S. Zimmermann, Ill.

The medal awarded that student who had taken his entire course in the school, and who had maintained the highest average, was won by Dr. Joseph Pettyjohn.

The valedictory was delivered by Dr. C. W. Gaskell, who had won the honor in a competition for the place some months previously.

Dr. Joseph Pettyjohn was appointed resident physician to the Sewanee

EDITORIAL.

Hospital, and Drs. Mallicoat, Pierce and Ringold were reappointed in the Mississippi State Hospital at Vicksburg, Miss.

THE MEDICAL JOURNAL.—In January, 1898, The Philadelphia Publishing Company, incorporated under the laws of Pennsylvania, will begin the publication of a weekly medical journal, to be called *Philadelphia Medical Journal*. The company has a capital of \$30,000, stock of \$10 par value, full paid and non-assessable. The management of the company is entrusted to a Board of Trustees, in which are represented representatives of leading medical schools. The editorial management is entrusted to Dr. George M. Gould, whose high reputation as a writer guarantees a vigorous, high-toned, and interesting publi-

shed in Philadelphia, which for over one hundred years has deserved as the medical center of the country, and under a strong and highly representative management, the cosmopolitan character and success of this journal seem assured.

It will be conducted solely in the interest of medical science and the profession. The editorial columns and the advertising pages will be on a same high plane of clean, independent journalism, free alike from undue influence of individuals, or firms, or of schools.

In addition to the usual attractions of a first-class medical journal, there will be important new features of service to its subscribers, but in view of securing promptly an unequalled circulation, the price of the journal has been placed at \$3.00 per annum.

INDISOME CALENDAR.—If you have not received a copy of the calendar issued by the Antikamnia Chemical Company, of 120 South Street, St. Louis, Mo., just send them your professional card, and they will send you a blank with your name printed thereon and you will receive a very amusing and grotesque illustrations by L. Crusius will attract you to remind you that time is passing—instructing while giving you risibles—Oh, you must laugh!

TRIED AND RELIABLE.—We have been using that truly grand and worthy preparation, Hayden's Viburnum Compound, so long—well, it is difficult exactly like to say how long for fear that some of the many friends we have acquired in our journalistic career, but whom we have the pleasure of meeting "face to face" might think we are out of order. Suffice it to say, that Hayden's Viburnum Compound is in the hands of the medical profession for THIRTY-TWO YEARS, and it with the highest degree of approbation at the hands of many

who are recognized as leaders and correct exponents of medical thought and progress. In the ailments of women and children, especially in cases of ammorrhœa, dysmenorrhœa, menorrhagia, dangerous flooding, threatened abortion, sterility and the menopause, it has proven on many occasions invaluable and incomparable. If we can induce anyone to give it a trial who has not yet done so we can feel that we have accomplished a very pleasant duty that will surely result in material benefit to some one.

THE LOFOTEN ISLANDS AND THEIR PRINCIPAL PRODUCT is the title of a beautifully-gotten-up and handsomely-printed pamphlet by Messrs. Parke, Davis & Co., the well-known manufacturing chemists of Detroit, Mich. Picking it up to glance at its contents, it was found so interesting that it could not be laid down until all, from the first to the last word, had been read. And then, the illustrations—marvels of beauty and specimens of the highest degree of art. Write at once and secure a copy—it will only cost you a postal card or a two-cent stamp, and will supply you with some interesting facts about the cod-fish, his liver, his oil, and his captors. *Mention this JOURNAL.*

PEROXIDE OF HYDROGEN.—As H₂O₂ is briefly mentioned in Dr. Haggard's very excellent article in this number, and to forestall a question that has been asked before, we will state that in this "bailiwick," when H₂O₂ is mentioned, *Marchand's*, the reliable, is intended. The special preparations, Hydrogen and Glycozone, of The Drevet Manufacturing Co., are just incomparable.

EMINENT AUTHORITY.—I have given your Bromidia with success as a remedy for Insomnia, especially where produced by excessive study or mental work.

DR. LUIGI SALUCCI, Physician to the Holy Apostolic Palaces,
The Vatican, Rome, September 1, 1897.

MELLIN'S FOOD.—I have experimented with most of the infant foods now in the market (also with the various cream mixtures), and the only one of them that has given me entirely satisfactory results is the preparation known as "Mellin's Food." Of course it should be thoroughly understood that none of the foods made after Liebig's formula are intended to take the place of human milk, or even cow's milk. Mellin's Food is simply a preparation for the modification of fresh cow's milk so that it may be rendered acceptable to the stomach of the infant.

D. S. MADDOX, M.D., in the Cincinnati *Lancet-Clinic*.

OPHTHALMIA NEONATORUM.—The law of many states require the obstetrician to use prophylactic measures to save the sight of newly born infants. A safe, harmless and positive procedure is the thorough cleansing of the conjunctiva with a 25 per cent. solution of "Palpebrine" and the application of a few drops of full strength into the eyes shortly after birth. Many physicians make it a routine rule to use "Palpebrine," even if there is no evidence of liability to infection. "Palpebrine is an antiseptic, germicide and slightly astringent solution." The Dios Chemical Co., St. Louis, will mail sample and formula on application.

SANDER & SONS' EUCALYPTOL EXTRACT (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Grieswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

URIC ACID DIATHESIS.—Gave to a man with frequency of micturition, pain in back, and bloating of stomach and bowels; with rheumatic pains in limbs; sleepless and nervous; with full feeling and eructations after meals, Lithiated Hydrangea (Lambert's), in doses of two teaspoonfuls after meals, and the following:

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| R | Potassii bromidi..... | ʒ iij |
| | Extr. cas. sag. fl..... | f ʒ iss |
| | Vin. kola..... | f ʒ ij |
| | Tinct. cinchon. co. q.s. ft..... | f ʒ iv Misce. |
| SIG. One teaspoonful, in water, before meals, | | |
| and two teaspoonfuls before retiring. | | |

He improved as if by magic; bloating, full feeling, eructations and all pain disappeared; sleeps well, and there is no undue frequency of micturition.

CHARLES H. SPRINGER, M.D.

Cleveland, Ohio.

THE ALVARENGA PRIZE.—The College of Physicians, of Philadelphia announces that the next award of the Alvarenga Prize, amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1898, provided that an Essay deemed by the Committee of Award to be worthy of the Prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1898.

Each essay must be sent without signature, but be plainly marked with a motto, and be accompanied by a sealed envelope having on its out-

side the motto of the paper, and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned, upon application, within three months after the award.

The Alvarenga Prize for 1897 has been awarded to Dr. Joseph Collins, of New York, for his Essay entitled: "Aphasia."

Philadelphia, Oct. 15, 1897. THOMAS R. NEILSON, Secretary.

LOOK OUT FOR IT! Quite a number of our friends have already sent in their renewals for 1898. Those who have not, as well as a few who are in arrears prior to 1898, will find enclosed in the wrapper of this number a little slip which is self-explanatory—possibly it is somewhat familiar to some. Well, just look out for it, and return it to us by mail accompanied by the needful, in currency, post-office or express money order, bank draft, or in one or two cent stamps. The mailing wrapper also contains the date to which your subscription has been paid. Business is business with doctors as well as others.

OUR ADVERTISERS.

We begin the initial number of this Journal now entering on its twentieth year of most successful existence with a larger and more satisfactory advertising clientele than any previous year; furthermore, exercising a careful surveillance over this department of the Journal, which has ever been our care, we can say without hesitation that in the entire list will not be found a single article that is not well deserving a thorough trial, while many of them are of well-known, long-tried and established excellence and reputation.

EVE'S SURGICAL INFIRMARY, recently established in the healthiest and most desirable portion of the city, occupies a handsome elevation, enclosing two acres of ground, a most excellent and admirably-arranged building, with all home-like features, yet fully equipped with everything pertaining to the highest advancement of aseptic and anti-septic surgery, and in charge of Drs. Duncan and Paul F. Eve, with a competent resident physician and a full corps of thoroughly trained nurses, needs only to be seen to be admired and commended.

THE WM. S. MERRELL Co., so well known as reliable manufacturers of Green Drug Fluid Extracts, and other pharmaceutical specialties, have an important notice on our first cover page. This establishment is so well and widely known that they need no endorsement at our hands; however, we request our readers to look well at their statements, or they may miss something.

SYR. HYPOPHOS COMP.; FELLOWS', has had many imitations and but few if any equals.

CAROID will readily digest food of every nature and kind whatsoever, yet its greatest value is due to its action upon the digestive organs themselves; cleansing the stomach walls, leaving them in an absorptive condition, removing any excess of mucus from the alimentary tract, and promoting the generation of the natural digestive fluids; being a remedial agent in the truest sense.

HAYDEN'S VIBURNUM COMPOUND is a boon, indeed, in the ailments of women and in obstetric practice; and the URIC SOLVENT (Hayden's) is a scientific combination for renal disorders.

BROMIDIA is an old favorite the world over, far superior as a brain sedative to opium or any of its alkaloids, and with its companions, PAPINE and IODIA, are all now standard.

WAYNE'S DIURETIC ELIXIR is used by Prof. W. Frank Glenn and many other specialists in all irritations of the kidneys, bladder, urethra, prostate, etc.; the TONIC APHRODISIAC TABLETS (Wayne) are composed of phosphorus, nux vomica, damiana, saw palmetto and coca.

LISTERINE is antiseptic and prophylactic, non-toxic and non-irritant, for external and internal use, and is in itself, its own best advertisement.

FEBRILENE in malarial regions makes the baby laugh, wax fat and grow old gracefully and normally.

VIN MARIANI nourishes, fortifies, refreshes, aids digestion, strengthens the system and is an agreeable tonic stimulant without unpleasant reaction.

TONGALINE, liquid or in tablets, is a *sine qua non* in rheumatic affections. It has never disappointed us.

DIOVIBURNIA, NEUROSINE and PALPEBRINE are well and favorably known to many of our readers. If you have not tried them, fail not to avail yourself of an opportunity.

MARSHALL'S SADDLE-BAGS can be converted into a most complete buggy-case, made of best material and in the highest style of workmanship.

GLYCOZONE and HYDROZONE (Marchand's) have never failed to give satisfaction. No disappointment has ever resulted except when a substitute has been palmed off on the unwary and unsuspecting. Bear it in mind, the more excellent a preparation the greater likelihood of substitution.

WILLIAM R. WARNER & Co.'s BROMO SODA, INGLUVIN and SUGAR-COATED PILLS have well won a world-wide reputation. Why go to the springs when with WARNER & Co.'s LITHIA TABLETS you can make water just as easy.

COLDEN'S LIQUID BEEF TONIC and HYDROLEINE are too well and widely known to need commendation at our hands.

PHILLIPS' EMULSION exhibits the highest degree of excellence in emulsionizing Cod Liver Oil. 40 per cent. finest Norway Oil—in minute sub-division—emulsified by Pancreatine—combined with the Wheat Phosphates (PHILLIPS'). Acid reaction, precluding saponification. **PALATABLE—PERMANENT.**
Miscible in Water, Milk, Wine, etc. Prescribe PHILLIPS'.
THE CHAS. H. PHILLIPS CHEMICAL CO., 77 PINE ST., NEW YORK.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX. **NASHVILLE, FEBRUARY, 1898.** **No. 2.**

Original Communications.

REMOVAL OF AN EAR FOR EPITHELIOMA.

SURGICAL CLINIC OF DUNCAN EVE, M.D.,
Professor of Surgery and Clinical Surgery, Medical Department Van-
derbilt University.

Reported for the Southern Practitioner by T. I. Pegram.

GENTLEMEN:—We have before us a very interesting case, referred by the kindness of Drs. Biggs and Finch, of Weakley County, this State, who I take pleasure in introducing.

This affection is about seven years standing, though it has not been ulcerated until within the past eight months, during which time it has been removed twice—the last time less than three months ago.

As characteristic of the disease, it has a very insidious origin. The patient remembers that he had a little scaly or horny

excrescence on his ear which gave him no great inconvenience for some time, or, in fact, until a distinct ulceration began, when he applied for medical advice; and, failing then to follow the same, allowed several weeks to lapse before submitting to treatment. You will notice that the entire left ear is exceedingly enlarged and ulcerated. The operations that have been made were for the excision of growths that have not only developed on, but in front of the ear. Unfortunately, neither of the operations have checked the affection, which I unhesitatingly pronounce epithelioma, undergoing ulcerative action.

The previous operations would have been failures in any one's hands, and the procedure we propose making may also be a failure, but it is all that holds out any hope for our patient. We have not promised, ~~under the circumstances~~, to effect a cure, for this we can not do. We can only prolong his life.

We are going to remove it thoroughly again, and make as we expect an exceedingly radical operation, by not only removing the entire ear, but much of the tissue around the ear that is infiltrated by the disease, as well as remove the affected lymphatics. Nothing short of this would be, at this time, common sense or according to the dictates of modern surgery.

An epithelioma usually begins as a nodule or induration of small size, slightly reddened at its margin, which breaks down into a dirty ulcer, which is covered with a grayish mass of pus and broken-down tissue, or solidified into a crust or scab. The margins of the ulcer are hard and everted, pain usually mild in character, is always a symptom. Lymphatic engorgement may occur in the first few weeks, but it is sometimes longer appearing or entirely wanting. From its lymphatic invasion infiltration and destruction proceeds.

Epithelioma, especially when exposed to the air or to surface irritation, quickly ulcerates, and sometimes the cells proliferate so rapidly as to give the ulcer the cauliflower-like arrangement to be observed in this case. From such a surface there is a constant discharge of foul-smelling detritus and even sloughs.

The wart-like form runs the slowest course of all, but even here the malignant tendency is most evident.

Microscopically, most superficial epithelioma are composed of pavement or tesselated cells, crowded in tubules or cylinders,

which are long, more or less irregular in shape, at times anastomosing with each other and held together by a stroma of connective tissue.

An epithelioma should be attacked with determination and without mercy. Its successful treatment demands early and wide removal of the diseased parts, and complete extirpation of all involved lymph-glands. Both of these to be carried out without regard to anything but complete removal. The involved tissues being excised, the question of plastic closure for loss of tissue calls for the best of judgment and the highest degree of operative skill.

Now, gentlemen, regardless of what we have had to say on this subject, you will perhaps ask how do we know that this patient has a skin cancer? We will answer by saying the history, age, ulcerative formation, infiltration, lymphatic envelopment, and the fact of its having been removed and recurring again, all make the diagnosis positive.

We are not going to run any great risk, and we have promised whatever we do shall not endanger life.

The patient being anæsthetised, we will begin the operation by making elliptical incisions, begining near the parietal protuberance, including in these incisions not only the ear but, as you will notice, the infiltrated surrounding tissue. The lower angle of the incision passing well down upon the neck to about its middle. After dissecting this large mass of structures out, we fortunately find the periosteum and bone not affected. We will, therefore, complete the procedure rapidly, by removing all of the seemingly infiltrated connective tissue, as well as removing the several enlarged glands in the neck. While, as expected, we have had considerable blood, however, the only vessel of any size that has required a ligature is the temporal; having by careful dissection avoided severing the internal maxillary artery.

Finding the auditory canal impervious, we expect no great trouble in the management of the after-treatment of the case. While an exceedingly large chasm is left to heal by granulation, we have every confidence in the greater part of it closing. It is more than probable that skin grafting will be needed, yet this means, if resorted to, will not be required until nature makes every effort, aided as she will be by frequent antiseptic dressings.

We are going to send this case to our Infirmary, where we hope to give him the best of attention, and will be pleased to report his condition from time to time.

A CLINICAL LECTURE ON TUBERCULAR PERITONITIS.

BY RICHARD DOUGLAS, M.D.,
Professor of Gynæcology and Abdominal Surgery in the Medical
Department of the Vanderbilt University.

GENTLEMEN:—It is my pleasure to present to you this most interesting case for diagnosis and treatment. This lady is 38 years of age, of tuberculous family history, married, multipara and has been in ill health for about two years. She has lost thirty pounds in weight, suffers from digestive disorders and amenorrhœa. For the last two weeks her temperature record has been worthy of note, showing usually 100° in the morning and 102° in the evening. Her pulse is frequent, rarely found under 100°. Examination fails to reveal any disease of the heart, lungs or kidneys.

With this brief statement of her general condition I beg to call your attention to the physical examination of the abdomen. You observe that it is asymmetrically distended, the enlargement lying chiefly on the right side, the most prominent point being a little above the level of the umbilicus. A smaller and second enlargement, apparently separated from the other, is seen in the right inguinal region. The integument is pale and anemic, the veins not especially enlarged. Respiration is chiefly thoracic.

By palpation we note considerable muscular resistance, especially pronounced in the upper zone of the abdomen. The patient is unusually tender, manipulation excites muscular contraction. The swellings are elastic and smooth, and you observe that I can place my hand between the two and depress the anterior parietes to the vertebral column, thus showing conclusively that there are two distinct enlargements. The general feel of the tumor is very soft and can be somewhat compressed as though

the sac was not entirely full. Fluctuation is remarkably distinct. Percussion dulness is pronounced over the swelling, but you observe that there is an area of resonance separating the lower border of the tumor from the symphysis and Poupart's ligament. The dulness does not change with change of posture of the patient, but the general appearance of the abdomen is materially altered when the woman is turned upon her side. It is impossible to grasp or move the tumors in any way.

Vaginal examination reveals a large retroflexed uterus, the pelvis is apparently free from any growth. Assuredly we have in this case a cystic accumulation; and the diagnosis rests between double ovarian cystoma, the left having a long pedicle, thus allowing the tumor to come up out of the pelvis and the intestines to fall below the tumor, causing an area of resonance in the left inguinal region; or, else we have here a case of tubercular peritonitis with encystic accumulation of serous fluid.

Let us see now what light the clinical history will give us. In cystic degeneration of both ovaries we may have amenorrhœa. In tubercular peritonitis, amenorrhœa is likewise a common symptom. Ovarian tumors, unless infected or otherwise complicated, do not produce temperature, and when of small size the general health is not especially impaired. Disturbances of digestion and nutrition are relative symptoms. In view then of the emaciation, the amenorrhœa, the elevation of temperature, the increased pulse-rate, we would pronounce this a case of encysted peritonitis, probably tubercular in nature.

The treatment for this pathology is somewhat empirical. Abdominal surgeons have accidentally discovered that the simple opening of the abdomen, evacuation of the accumulated fluid and thorough irrigation of the entire peritoneal cavity with normal saline solution is followed by arrest of the tubercular deposit, and the restoration of the peritoneum to a healthy condition. I prefer in this case to make my incision in the median line; examination shows the uterus, tubes and ovaries studded with tuberculous nodules, otherwise they are normal. I encounter on the left side a very delicate membrane, a mere veil of fibrous adhesion which, stretching from the anterior parietes, completely isolates an area or pocket of the peritoneum. This membrane is easily ruptured and the fluid escaping is a pale,

straw-colored effusion. You notice that there are many smaller sacs distributed over the mesentery of the small intestine. These are so delicate that they easily break down upon the slightest pressure. The accumulation on the right seems to be about the head of the cecum and appendix; from this we evacuate several ounces of fluid. Searching carefully over the abdomen for further accumulations, but finding none, we shall now irrigate the abdomen with normal saline solution, and after introducing a glass drainage tube into the cul-de-sac of the pelvis the abdominal incision is closed in the ordinary way. The after-treatment of this case will be stimulating and supportive. After twenty-four hours I will place this patient upon the most nutritious and easily-digested diet. The medicinal treatment will consist in the free administration of alcohol and creasote. It is my intention to leave the drainage tube in this case longer than is usually employed, it will not be removed perhaps for four or five days.

REMARKS.—This patient made an uninterrupted recovery, has steadily gained in strength and weight, and promises to be one of those remarkable cases of permanent cure of tubercular peritonitis after this simple procedure.

CASE II.—Miss G., age 42, spinster. A very frail woman of decided nervous temperament. About a year ago she suffered with some mental disorder for which she was treated in a private sanatorium and was entirely restored. Never robust in health, she has from time to time suffered from digestive disorders, especially flatulence and constipation, and two attacks of hepatic colic. Her physicians advised her to spend the winter in Florida, and on her way South she stopped over in Nashville, and Dr. Witherspoon was called to see her. He found her suffering with some digestive disorder and prescribed in the emergency. He consigned the case to the care of Dr. J. A. Gaines, and to these friends and colleagues I am indebted for my connection with the case and the privilege of reporting.

When Dr. Gaines first saw this patient she was obstinately constipated, abdomen distended, slight nausea and occasional vomiting, all stomach medication was rejected. Enema produced violent rectal tenesmus but failed to secure either the escape of feces or flatus. Her pulse and temperature were

practically normal, occasional biliary vomiting without much nausea, absolute constipation and general tympanitic distension of the abdomen. Looking upon the case as one of ileus, preparations were made for operation the following morning. During the night of December 25th she passed flatus and had a slight bowel movement, sufficient to convince us that absolute obstruction did not exist. Further laxatives were given and satisfactory evacuation of the bowels obtained, yet the distension of the abdomen was unrelieved, and Dr. Gaines readily detected the presence of a small amount of ascitic fluid. The condition of the patient remained practically the same for several days, the only noticeable change was the gradual increase of peritoneal effusion and progressive enlargement of the abdomen with the peculiar distension of the epigastric region. This appeared as a cone-shaped swelling, rising at least three inches above the plane of the abdomen, its apex being about three inches above the umbilicus. This protuberance was at times dull and resonant; below this at the waist line there was decided constriction, while the sub-umbilical zone of the abdomen was enormously distended. The patient's pulse was increased in frequency, she was becoming exhausted from ceaseless vomiting and want of nourishment. The present status of the case is, as you observe, very bad, yet her pulse is 125, she has been vomiting constantly for at least twenty-four hours, unable to retain any nourishment whatever, bowels have moved freely, there is marked diminution in the amount of urine secreted, not more than twelve ounces in twenty-four hours. She has no temperature, nor has there been the slightest fever at any time during her illness. Her general appearance indicates serious illness. Observe the contour of the abdomen, the epigastric and abdominal swellings are quite distinct. The epigastric tumor was thought to be acute dilatation of the stomach, but lavage of the stomach soon settled that question and we now consider it distension of the transverse colon; and the abdomen which has been generally tympanitic has within the last few days become dull, evincing the rapid accumulation of ascitic fluid. There is no cardiac, hepatic or renal disease.

To summarize, we have a history of abdominal disturbance for at least twelve months, two distinct attacks of colic and

obstinate constipation, which two weeks ago amounted to obstruction lasting for eight days, accompanied by rectal tenesmus, nausea and vomiting, increase in pulse rate and normal temperature. The abdomen, tympanitic from the first, has become dull and fluctuation is remarkably distinct. Careful palpation fails to reveal the presence of a tumor or induration, yet the great distension precludes the application of this method of examination.

Reasoning from the history of the case and from the symptoms presented we may be reasonably sure that there is a chronic serous peritonitis. This exists, however, in our judgment merely as a symptom or complication of some more definite pathology. The first condition that naturally suggests itself is partial obstruction of the bowels. Acute intestinal obstruction, volvulus or intussusception may be entirely eliminated from our consideration. Hepatic cirrhosis, a common cause of abdominal ascites, we may exclude both for the want of physical signs and of an etiological factor. Malignant disease of the tubes and ovaries, which frequently produces ascites, would be recognized by bimanual palpation. Tubercular peritonitis we certainly should consider, yet the absence of fever and the rapid accumulation of ascites, and the condition of obstipation are strong arguments against the existence of such a condition. In searching for the probable pathological explanation of the symptoms presented, it appears satisfactory to conclude, that there is malignant disease low down in the alimentary tract which has gradually encroached upon the lumen of the bowel, producing obstinate constipation, and by its progress and growth giving rise to intermittent attacks of apparent obstruction, causing colic and the digestive symptoms from which she suffered; and within the last few weeks so occluding the caliber as to cause atony and dilatation of the colon above the obstruction and peritoneal inflammation with effusion.

It is a well-known fact that malignant disease may progress to an advanced stage without temperature. That there is no ulceration or atrium for infection we may conclude from the clinical fact that there has been no intestinal hemorrhages. Arriving at a diagnosis in this case, then, by exclusion, we will undertake an operation in your presence, believing that we have

to deal with malignant disease of descending or pelvic flexure of the colon. The operation will involve opening the abdomen by central incision for the purpose of exploration and diagnosis, and if the clinical diagnosis is confirmed we will either establish an artificial anus or do a resection of the intestine and anastomosis.

The patient is anæsthetized with chloroform, abdomen is opened just below the umbilicus by small incision, some two gallons of pale straw-colored fluid escapes. The omentum is contracted into a hard mass which is closely adherent to the transverse colon, coils of small intestines are enveloped in the omentum. Over the surface of the omentum and adjacent intestines we find studded tuberculous nodules. The sigmoid flexure of the colon and parietal peritoneum over the inguinal region, uterus, tubes and ovaries are all thickly set with pale yellow nodules of like character. The entire peritoneum presents a congested and bluish mottled appearance. Certainly the clinical diagnosis was wrong; the true pathology of the case is general tuberculous peritonitis, the infection in all probability coming from the uterine appendages. As in the preceding case all that can be done is thorough irrigation and drainage of the cavity, and if the patient survives the shock of the operation she may even yet be restored to health.

NOTE.—The operation was completed in a few minutes, cavity irrigated and glass drainage tube employed. The patient revived quickly from the anæsthesia, expressed herself as feeling remarkably well, and delighted with the disappearance of the swelling. Nausea and vomiting ceased immediately, she took nourishment, kidneys acted freely, and bowels moved slightly in about twenty-six hours. Temperature remained about normal, pulse improved in volume and lessened in frequency. Thirty-two hours after operation patient was feeling remarkably comfortable and fell into a quiet sleep, from which she awoke suddenly, showed some alarm, said she had had a horrible dream, complained of oppression and difficulty in breathing, grew cyanotic, became delirious in a few minutes and rapidly sank and died, in all probability from cerebral embolism.

ORIGINAL COMMUNICATIONS.—PEPPER.

CASE OF EPILEPSY SUCCESSFULLY TREATED
FOR EIGHT YEARS WITH ANTIPYRINE
AND SODIUM SALICYLATE.

BY PROF. WM. PEPPER, M.D., LL.D., OF PHILADELPHIA, PA.

Edited especially for the Southern Practitioner by J. Howe Adams, M.D.

I feel that practitioners of medicine are satisfied to treat cases of epilepsy in a routine way too frequently. Many busy physicians, unfortunately, have come to look upon these cases as practically helpless and hopeless, and beyond administering the usual medicines in a routine way, and keeping more or less of a record of the number of convulsions which occur from time to time, do practically nothing. This I feel to be a great mistake. Every case of epilepsy presents features of its own, which may be studied to advantage and to good effect. One great source of advancement in these cases is the study of the cause of the epilepsy and the conditions which produce or prevent convulsions. Of course, in considering the question of treatment, the question of trephining the patient naturally suggests itself. If the epilepsy is Jacksonian in character, if you can find a depressed fracture of the skull, with the possibility of an adherent cicatrix underneath, coupled with the history of an accident, you should consider seriously the question of operative interference. But to operate simply with the indefinite hope of doing good is very futile. The number of cases which are benefited greatly by the operation are so few in number that this procedure is not warranted.

Laying aside the question of operation, which naturally presents itself to the mind, make a careful, systematic study of your cases. You may find underlying a lithæmic or gouty diathesis, the improvement of which may have marked effect upon the epilepsy. Again, great stress may be laid on reflex causes, such as dentition, or the presence of intestinal worms, some local affection, such as an adherent prepuce, etc. Again, remove

all disorders of the stomach and liver, and enforce the use of a rigidly selected diet.

Of course, while the remedy *par excellence* is the bromides, in some combination, their use can be modified so that much more effect can be produced than if given in a routine way. Personally, I do not believe in pushing the use of the bromides beyond a certain point. In the first place, the bromides may do harm in large doses by producing bromism, and depressing the system and disordering the stomach. In these cases, vary your remedies. If you are using potassium bromide to but little purpose, try some other bromide, such as ammonium or lithium. I believe the ammonium bromide to have a less depressing effect upon the system, while lithium bromide is excellent in cases of lithæmic nature. Frequently the stoppage of the use of the bromides and the exhibition of mineral acids, or nitrate of silver, or oxide of silver, exciting marked influence on the mucous membrane of the gastro intestinal tract, are most efficient. I do not believe that the nitrate of silver is of much use in epilepsy beyond its local effect, but certainly in some cases its results are most happy.

The advantage of using your ingenuity in the treatment of epileptic cases is happily illustrated in the following case, which occurred in my own practice. Some fifteen years ago I was called in to see a business man who had found, on awakening several mornings from time to time that his night clothes were stained with blood around the neck, and that his tongue was cut and swollen. Unknown to the man, I had a watch put upon him, and we soon found that he was suffering from nocturnal type of epilepsy, developing quite late in life. Under treatment by the bromides we soon found that he was rather worse, if anything. Studying his case, we soon determined that we could predict the nights on which these convulsions occurred, for they followed invariably an upset condition of his stomach and liver. The evening before a convulsion he would complain of gastro-intestinal trouble, his tongue would be coated and his breath heavy. By regulating his diet, and especially with the avoidance of heavy food at night, in fact, making the evening meal a very scanty one, we were able to produce a marked improvement, although the convulsions still continued from time to time.

In casting round for the use of remedies which would control the convulsions I directed him to take antipyrine and sodium salicylate. This was about eight years ago, and for the last three years he has not had a convolution, while during the previous five years they came with less and less severity and regularity.

TRIBUTE TO THE MEMORY OF DR. JOHN BER- RIEN LINDSLEY.

BY Q. CINCINNATUS SMITH, M.D., OF AUSTIN, TEXAS.

Our great teacher, sanitarian and public benefactor has gone to rest. As one of his many devoted pupils I come to tenderly lay a tiny flower on his newly-made grave. The cruel slayers of men are called great, but he was far greater than they. Surely Hygeia dropped a tear when Lindsley fell. For he spent his long, earnest and eminently useful life diligently and faithfully laboring to promote the highest and best interests of others. Indeed, it was the chief delight of his life to encourage the true, the beautiful and the good, and in every possible way aid in elevating and improving the condition of mankind. Thousands enjoy and will long continue to reap the beneficent rewards of his noble, earnest and public-spirited labors. To his pupils and all those about him he was gentle, kind and helpful, at all times and in all ways; freely and cheerfully giving, without reserve or stint, from the vast stores of his wide and varied learning and profound knowledge.

The reminding tokens of his loving, useful and noble life rise up to meet us on every side, for he was a warm and true friend to all that is good, in person, word or deed. Indeed, we shall never look upon his like again. No marble shaft or granite pile need mark the sacred spot where his crumbling ashes rest, for he beautifully wrote the history of his noble life as he lived; his honored name and goodly labors are a large part of the history of his people and country, and while these records endure, on written scroll or in faithful hearts, will the luster of his good name and noble deeds brightly shine midst the honored annals of the world, for he sweetly sleeps

“On Fame’s eternal camping ground,
The bivouac of the noble dead.”

Selections.

"THE THERAPEUTIC VALUE OF ARSENAURO."—To fully appreciate the therapeutic value of a drug, one must understand its limitations. No remedy can be made to do more than a limited number of things. To ascertain just what pathologic conditions are modified or changed for the better by a given therapeutic agent is a task of no mean importance, yet an absolute necessity when we aim to be rational in our methods.

For the past four years Arsenauro has been one of the chief factors in my therapeutic armamentarium because of its almost universal happy effects in the special line of work that I have, almost exclusively, engaged in. The body of work has been in the field of denutrition, and false metabolism depending remotely upon gastric and intestinal indigestion.

It is not my purpose at this time to classify and enumerate an extensive list of such patients, but rather to give a very short clinical history of a type case in which the phenomena that reached the threshold of consciousness were sufficiently distinct to induce the opinion that a diverse etiology, rather than a single line of cleavage, was necessary in order to reach a logical demonstration of the causative factors in operation, and therefore rationally outline a therapeutic course destined to terminate in satisfactory results.

Abnormal metabolism and denutrition express themselves in direct relation with constitutional idiosyncrasies, hygienic environments and the vulnerability of the organism. Bearing this in mind we can comprehend why one patient will present a pathology of the lungs, another a kidney affection, and still another a disease of the nervous system, while the point of departure from the health line in all is the same.

The first case in which I noticed gratifying results following the exhibition of Arsenauro, was that of a traveling insurance adjuster who had suffered with gastric indigestion over a period

of five years, in consequence of which his blood stream was impoverished, his nervous system shattered and the whole organism working at the lowest possible pressure. The particular symptom that brought him to me was insomnia. He was forced to quit work on this account. A farther description of this case is unnecessary, as the clinical picture is familiar to every one. A thorough cleansing and disinfection of the digestive tube was the first step, after which I carefully regulated the diet so as to insure the greatest quantity of nutrition for the least amount of energy expended by the digestive forces. Bathing, massage and electricity were ordered. The usual carminative and tonic drugs were exhibited. This course was persisted in for a month, during which there was noticeable betterment, but not sufficient to satisfy either the patient or myself. I now withdrew all former drugs and gave him Arsenauro in ten-drop doses four times daily. In ten days the patient was sleeping comfortably, eating and digesting fairly well, and, altogether, was sufficiently recovered to go to work moderately. After sixty days constant use of the drug he announced himself as having entirely recovered and able to perform the exacting work required of him with ease and pleasure.

The recital of this case will suffice to illustrate the groove into which Arsenauro fits so perfectly. It changes the chemical movement in the blood plasma. The movement of the atoms thus initiated continues; new material takes a more pronounced part in the various phenomena of motion and life; the lymphatic glands, whose office it is to supply fresh material to the blood and nervous system, are changed to healthy action, their products become normally reconstructive; cell digestion is stimulated, and the blood is improved up to a normal standard.

To accomplish these results, however, it is not enough to simply give Arsenauro. I have tried to expose the preparatory work, which is absolutely essential, and without which, Arsenauro, like any other drug given out of time and place, will yield only negative or indifferent results.

I have never secured from Fowler's Solution the fully desired arsenic results which have invariably followed the administration of Arsenauro, and yet, as Dr. Stuckey, over a year ago, pointed out in his scientific paper, the average dose of Arsenauro

contains very much less actual metallic arsenic than does Fowler's Solution. We evidently have an entirely new agent in Arsenauro, something more than the mere combining of arsenic and gold, for by evaporating Arsenauro you have a resultant crystal which is not the crystal of arsenic, nor is it the crystal of gold, but a crystal such as I have never seen before. I would lay emphasis upon the point that I have observed no evidence of arsenical poisoning from Arsenauro. It does not produce cumulative effects, but is easily and promptly assimilated.—A. P. Buchanan, M.D., of Ft. Wayne, Ind., in *New England Medical Monthly*.

EUCAINE.—P. C. Wallis, M.D., F.R.C.S., in an article entitled "Eucaine as a Local Anesthetic when used Hypodermically," published in *St. Bartholomew's Hospital Journal*, August, 1897, states having used Eucaine (B.) for some months past in St. Mark's and Charing Cross Hospital in nine removals of tumors, forty-four rectal operations and 2 abdominal operations, the results of his experience with Eucaine are most satisfactory. He has used a solution of 4 per cent., and has never seen any signs of toxic effects even when a considerable amount has been used. This percentage he found quite strong enough to produce absolute local anesthesia for any small operation. He has in a large ischio-rectal abscess injected as much as $3\frac{1}{2}$ to 4 drachms subcutaneously without any ill effects at all. The average amount required for a small operation was from 1 to $1\frac{1}{2}$ drachms of 4 per cent. solution. One of the great boons this drug possesses is that the operator need not be at all nervous about using sufficient, and if the desired anesthetic effect is not produced by 1 drachm the second or third can be used with every confidence as to the safety of it. He frequently used it most in the out-patient room for abscesses, and found it most useful both in hospital and private work for removing the redundant skin which is sometimes left after an operation for hemorrhoids. He has no after-effects to record, and concludes that Eucaine has a great deal to recommend it.

In the *British Medical Journal* of November 27, 1897, Drs. W. Jobson Horne and Macleod Yearsley described their experience with Eucaine (A.) which they have employed in one hun-

dred cases of diseases of the ear, nose and throat. They found that the pulse was not materially affected in either rate or character, and they have not met with a case in which the drug, *per se*, influenced the cardiac action.

It has been stated that Eucaine induces hyperæmia, and on this account the drug is inferior to cocaine, which produces ischæmia so serviceable in investigating diseases of the nose. Upon the application of a 5 or 10 per cent. solution of Eucaine to the mucous membrane hyperæmia will occur as an immediate result. This is in the majority of cases, but an initial blush rapidly passes off and gives place to an ischæmia, which, as seen in the nose, is generally less marked than that produced by cocaine. Upon a further application there is no recurrence of hyperæmia, and the ischæmia may be increased. In no case have we met with excessive or unexpected hemorrhage following operations done under Eucaine anesthesia, such as is not uncommonly met with after the use of cocaine. This is no doubt accounted for by the action of Eucaine upon the peripheral vessels already alluded to.

As regards the disturbances of sensation following the anesthetic action of the drug, more particularly in the case of the pharynx, these are not only less unpleasant and less marked than those produced by cocaine, but more transient, and speaking generally, after the lapse of an hour from the time of application, the subjective sensations may be described as normal. Those who have experienced the effects of both drugs have expressed a decided preference for Eucaine. In concluding, the writers say:

"Were Eucaine to be of no further service than to act as an efficient substitute in cases such as we have mentioned, in which an idiosyncrasy for cocaine precluded an operation, even then this new local anesthetic could not be regarded otherwise than of importance.

So far in our experience with Eucaine we have not met with a case in which a single symptom supervened in the least way suggestive of a toxic effect of the drug."

We quote the following from *The American Journal of the Medical Sciences*, Philadelphia, December, 1897:

"Eucaine (B.) in Stomatology.—Drs. Dumont and A. Le-

grand make use of a 1 per cent. solution sterilized by boiling. They report seven observations, concluding that it is a good local anesthetic, producing anesthesia as rapidly as does cocaine, but which persists for a shorter period (about three times less), and that its feeble toxicity permits its safe employment in dental surgery even when practised upon children.—*Bulletin General de Therapeutique*, 1897, 18e., liv. p. 545.”

GUAIACOL.—Dr. Beale, at a meeting of the Harveian Society of London, held on October 21, 1897, read a paper on “Recent Experience of the Use of Large Doses of Creasote in Consumptive Cases.”

Dr. Stamford G. Felce inquired whether Dr. Clifford Beale used creasote of any particular manufacture, as he had found the results vary greatly with different specimens of the drug, which, though occasionally well borne, was in a large percentage of cases not tolerated by the stomach. As commercial creasote is a more or less variable mixture, containing toxic cresols, paracresols, and pyregallel, it seemed to him more rational to use a drug which, possessing equal efficiency, is of a definite chemical constitution—a condition that is fulfilled by Guaiacol Carbonate. In a fairly large series of phthisical patients he had found this drug well tolerated, and in suitable cases frequently beneficial. Dr. William Squire, Dr. Cleveland, and others, also took part in the debate.—*London Lancet*, Oct. 30, 1897.

CONTINUED GOOD RESULTS.—The January, 1894, number of *The Quarterly Journal of Inebriety*, published under the auspices of The American Association for the Study and Cure of Inebriates, Hartford, Conn., U. S. A., says through its able editor, T. D. Crothers, A.M., M.D.—“Antikamnia is one of the best remedies in influenza, and in many instances is very valuable as a mild narcotic in neuralgias from alcohol and opium excesses. We have used it with best results.” In a letter of more recent date to The Antikamnia Chemical Company, Dr. Crothers writes: “Antikamnia continues to improve in value and usefulness, and we are using it freely.” *The Edinburgh*

Medical Journal, Scotland, says, regarding Antikamnia: "In doses of 3 to 10 grains, it appears to act as a speedy and effective antipyretic and analgesic." *The Medical Annual*, London, Eng., says: "Our attention was first called to this analgesic by an American physician whom we saw in consultation regarding one of his patients who suffered from locomotor ataxia. He told us that nothing had relieved the lightning pains so well as antikamnia, which at that time was practically unknown in England. We have since used it repeatedly for the purpose of removing pain, with most satisfactory results. The average dose is only five grains, which may be repeated without fear of unpleasant symptoms."

THE ACTION OF SIMPLE LAPAROTOMY ON PERITONEAL TUBERCULOSIS.—Dr. Tschmarke, of Madgeburg, contributes to the *Centralblatt für Chirurgie* for June 12th a highly appreciative abstract of an article by Dr. G. Gatti, published in the *Archiv für klinische Chirurgie*. The article is founded on the author's numerous and painstaking experiments in the pathological laboratory of the Ospedale Mauriziano in Turin. It seems that so long as in 1894 Gatti opposed the general assumption that in consequence of the mechanical or chemical irritation of laparotomy a retrogression of the tubercles took place and a regenerative process set in in consequence of an infiltration of leucocytes and phagocytosis with a subsequent active development of connective tissue. He himself attributed prime importance to dropsical degeneration of the epitheloid cells, vacuolization, which ultimately attacked the nuclei and occasioned the destruction of the cells. In 1895 Mazzoni described similar processes and concluded that the retrogression of the nodules might be brought about either by connective-tissue substitution or by cystic degeneration.

Gatti's experiments were made on guinea-pigs, rabbits, and dogs. The material employed in the inoculation was either bits of the omentum of tuberculous guinea-pigs or pure cultures. At every laparotomy pieces of the peritoneum and of the great omentum were removed for examination. After a number of days, either the animals were killed or a second laparotomy was

performed. It was found that fibrous peritoneal tuberculosis in the guinea-pig was curable by means of simple abdominal section, but the cheesy variety was not, although its further development might be checked. The same was found to be true of rabbits, but in them the presence of scattered cheesy nodules did not preclude a cure, because these nodules might be rendered innocuous by a slow process of calcification. The experiments on dogs were decidedly the most important. They presented pathological and other phenomena similar to those observed in the human subject; moreover, dogs were found to serve best for these experiments, since in them the tuberculosis was slower in its course and systemic infection occurred later than in other animals. It was found in the experiments on dogs that laparotomy was of no use if it was performed too soon, before the fibrous tuberculosis had reached its full development.

Gatti concludes that the cure does not depend on inflammatory reaction and an active growth of connective tissue, but on the fact that the epithelioid cells are destroyed by a slow drop-sical degeneration and then absorbed, the round cells and the bacilli gradually disappearing at the same time, so that finally only preëxisting connective-tissue stroma with its vessels remains. Abdominal section, he says, sets up conditions that either destroy or enfeeble the tubercle bacilli, in either case hindering their further multiplication. The proteins of the bacilli that have been killed or damaged by the operation then induce a slow degeneration of the epithelioid cells, and this underlies the histological retrogression of the tubercle. The fact that in every instance a reddish serous exudate occurs in the abdominal cavity suggests the idea that this blood-serum, which is known to possess great germicidal power, kills the bacilli and allows the above-described processes to set in.—*N. Y. Med. Jour.*

THE SOUTH AND YELLOW FEVER.—The numerous conflicting and in many instances ridiculous quarantine regulations formulated by State, County and Municipal authorities, and enforced oftentimes by excited and inexperienced men, aided in some cases by the shotgun, during the epidemic of yellow fever which has just prevailed in the Gulf States; the utter disregard

of commercial and railway interests, and in the end the complete failure to arrest the passage of the contagion from town to town and State to State, form a telling object lesson, which must convince the staunchest supporters of State autonomy that the Federal government should take entire and complete control of quarantine in such diseases.—*N. Y. Med. Record.*

MARCY'S OPERATION FOR THE RADICAL CURE OF HERNIA.—Further experimentations and the test of time seems to have demonstrated the superiority of this operation in most if not all cases of hernia. The results attained by its author in his four hundred cases, with a cure in about 90 per cent. and with no mortality at all in the uncomplicated cases, suffice to establish the safety as well as the superiority of the method in question.

This operation, erroneously named after Bassini and others, consists in the restoring of the anatomical relations of the parts which have been disturbed by pathological and other processes. This is brought about by dissecting up the cord and by suturing together the posterior border of the conjoined tendon and the posterior border of Poupart's ligament, restoring the posterior wall of the inguinal canal as well as the internal abdominal ring. The cord is then replaced and the external oblique and other tissues are joined over it down to the external ring, thus forming anew the inguinal canal. It is important in this connection to employ sutures which resist absorption for a considerable length of time, hence, Marcy advocates the use of carefully prepared kangaroo tendon, which is used invariably as a buried suture. The advantages of this material have been additionally endorsed by Coley, who has employed it in three hundred and fifty cases, with only one death, and but two or three relapses.

The results attained by Marcy's operation must necessarily be satisfactory not only because the anatomical relations of the parts are more or less perfectly restored, but must also offer a certain guarantee against relapses as under the restored conditions the internal pressure against the abdominal wall is directed, not as heretofore, in the axis of the cord but at right angle to it, against the internal ring.

As compared with other procedures, this operation is theoretically the most reasonable and no doubt practically the most effective.—*New England Med. Monthly*.

VALUABLE REMEDIES WORTHY OF ATTENTION.—Especially at this season are the tablets of "antikamnia and codeine," each containing $4\frac{3}{4}$ grains antikamnia and $\frac{1}{4}$ grain sulphate codeine, worthy of attention in the treatment of pulmonary diseases. This combination is a sedative to the respiratory centres in both acute and chronic disorders of the lungs. Cough, and in fact nearly all neuroses of the larynx are in the vast majority of cases, promptly and lastingly relieved, and often entirely suppressed. In the treatment of la grippe and its sequelæ, its value is highly esteemed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve; this combination does this, and in addition controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place the tablets in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor; in the uterine contractions which often lead to abortion; as well as in the nocturnal pains of syphilis, the results obtained are most satisfactory. In the various neuralgias, and in all neuroses due to irregularities of menstruation this combination affords immediate relief, and the relief is not merely temporary and palliative, but in very many cases curative. In these last conditions, always instruct that tablets be crushed before taking.

HYDROZONE AND GLYCOZONE IN GONORRHEA.—Sir: My attention has been attracted to an article published in your journal (N. Y. Med. Jour.) for July 3rd, by Dr. J. A. Silverman, of Butte, Montana. The writer states that no antiseptic has been discovered that will destroy the gonococcus without doing injury to the mucous membrane. As I presume he is open to conviction, I submit to you for publication the following report of three cases which I have successfully treated during the last few months with Hydrozone and Glycozone, agents which I con-

sider not only harmless but the most powerful healing agents that I have ever used in my practice of thirty-five years.

CASE 1.—A man called on me on June 20, with gonorrhœa of four weeks duration, with profuse discharge, micturition painful, and an acute burning sensation along the entire urethral tract. Pus sacs had formed in the canal, the meatus was inflamed, and the gonococcus was active, as determined by microscopical examination. I prescribed injections of one part of Hydrozone and ten parts sterilized lukewarm water, an ounce for each injection, four times daily. After two days I reduced the proportion to one part of Hydrozone and fifteen parts lukewarm water, and I directed Glycozone mixed with an equal amount of Glycerine pure to be injected on his going to bed. The diet was not restricted, but no stimulants were permitted. In two days no gonococcus could be detected. The discharge was lessened, the pain and difficulty of micturition had ceased, and in twelve days the patient was well. Continence was imposed for two weeks. Doses of bromide of potassium and bicarbonate of sodium were administered from time to time in order to make the urine alkaline and quiet the patient.

CASE 2.—A married man who had contracted blenorhœa from a woman who had the whites. The same treatment was ordered, and with such satisfaction that the woman was also brought for examination and treatment. Result, a cure in each case within three weeks.

CASE 3.—A man 50 years old, contracted gonorrhœa from a woman of the town. As the patient lived in the country, twenty miles out, no treatment was given until ten days after infection. Aggravated symptoms of gonorrhœa were present, and there was chordæ every night; the patient, to use his own expression, was "plumb wild." The Hydrozone injections were ordered, one part to twenty, owing to the great sensitiveness of the urethra and the possibility of orchitis if a stronger injection was used, as there was a slight swelling of the testicles. The Glycozone, diluted with equal parts of pure glycerine, was ordered at night. I also gave Glycozone internally in medicinal doses to allay a gastric disturbance due to nervousness. In this case the treatment was continued for twenty-five days. I sent my patient to his cattle ranch happy.—*Warren E. Day, M.D., of Prescott, Arizona, in N. Y. Med. Journal of Sept. 4, 1897.*

THE TREATMENT OF WHOOPING-COUGH.—E. Ditel, (Der Kinderarzt, Kronika Lekarska, 1897, viii, 201) compares the various remedies at present employed for whooping-cough as follows:

Antispasmin was administered in ten cases and did not by any means prove itself a specific in this disease. It did not influence the frequency of the paroxysms, although it had some slight influence on the intensity of the attacks. It proved to be a perfectly safe remedy. As it is, however, necessary to use it continuously for ten or twelve weeks to obtain any marked results, and as it is very high in price, it is not to be recommended.

Oxide of Zinc and Extract of Belladonna were also employed in ten cases, in doses of two to three grains of zinc oxide with one and a half grains of extract of belladonna. This combination diminished the number and intensity of the attacks; the duration of treatment was eight to eleven weeks.

Zinc Oxide alone was administered to twenty-five children, two of whom died with some pulmonary affection. In all other cases the disease ran a favorable course, duration about the same as in previous cases. Oxide of zinc does not seem a specific for whooping-cough complicated with diarrhœa.

Terpin-hydrat was employed in doses 3 to 5 grains three or four times a day, in fifteen cases ranging from two to five years in age. The duration of the disease was somewhat less—seven to ten weeks. Terpin-hydrat is indicated in broncho-pulmonary complications.

Bromide of sodium was only given to five children, from two to six years of age, in doses of 3 to 5 grains, two to three times daily. It seemed to diminish the paroxysms. The duration of the affection was seven to eight weeks.

Antipyrin, 2 or 3 grains at a dose, and given three to four times a day, was tried in eight children from 3 to 6 years of age. Its effect was only fugitive, so that it was found necessary to rapidly increase the doses.

Antipyrin and Codein (2 to 3 grains antipyrin and 1-16 to 1-8 grain codein), three or four times daily, was given in fifteen cases. Duration of the disease was six to eleven weeks.

Corrosive sublimate solution, 1 to 1,000, applied to the pharynx by means of a camel's hair brush, was carried out in

five cases without, however, yielding any result after three weeks.

The author arrives at the conclusion that it is necessary to make a change in the treatment according to the stage of the disease and its complications. He advises during the convulsive period bromides, followed in a few days by codein; if fever is present, he uses antipyrin, and if there is a bronchitis he uses terpin-hydrat.—*Pediatrics*.

MORPHINE POISONING.—Torre reports a case of morphine poisoning cured by permanganate of potassium, in *La Medicin Moderne*. The patient, a girl not quite five years old, had swallowed 0.06 gramme of hydrochlorate of morphine and was found in deep coma with cold extremities, cyanotic lips, slow respiration and greatly contracted pupils. He administered a solution of permanganate of potassium containing 0.2 gramme to 200 grammes of water, supplementing this at short intervals with three subcutaneous injections of potassium permanganate 0.1, distilled water, 10.0. After the third injection all symptoms improved in such a manner that he was able to leave the child. He gave half a teaspoonful of a solution of permanganate of potassium 0.06:129 grammes of water every hour. Three hours later the child was in a deep normal sleep from which it could only with difficulty be awakened; the pulse and respiration were normal and the pupils reacted well to light. Retention of the urine, for which the catheter had to be employed a few times, was the only after-effect of the morphine poisoning. The administration of a cathartic hastened recovery.—*Kinderarzt*.

SALINE INJECTIONS AFTER FLOODING.—Amillet (*L'Obstetrique*) insists that after grave hemorrhage in pregnancy or labor a saline intravenous injection is the best method for encountering acute anemia. A one-per-cent. solution of chloride of sodium is the only available mixture which has no evil influence on the corpuscles. At least 1,500 to 2,000 grams must be injected. In less serious cases 200 grams can be injected under the skin; more than one dose may be required. Amillet recom-

mends an intravenous saline injection or a subcutaneous injection before any obstetrical operation is performed on a woman exhausted by loss of blood. When a patient has clearly been revived by these means she must, in any case, be closely watched, as sometimes the good effects do not last. The injections must be repeated if necessary till all danger has passed away.—*British Medical Journal.*

THE WRECK OF A LIFE AND ITS WARNING.—The sudden and lamentable death of a young physician of this city on the morning of January 1st, from an overdose of cocaine, was a sad termination of a career which had the promise of being highly prosperous and even brilliant. The doctor, after completing his medical studies at the College of Physicians and Surgeons, nearly eight years ago, and serving as interne and house physician at several of the city hospitals with distinction and ability, had entered upon the private practice of his profession with unusually bright prospects of success. But, unfortunately and unadvisedly, he several years ago commenced the habitual use of cocaine in a medicated spray for the relief of a chronic nasal catarrh from which he had long suffered. As is quite sure to happen in such cases, the dose which at first afforded relief soon required to be increased in order to produce the desired effect; and then a demand for the drug in gradually increasing quantities, as a general stimulant, was created; until, finally, a dose somewhat too large, or taken when the systemic powers of resistance were below the usual standard, led to a fatal result.

There can be little doubt that practitioners of medicine often fail in their duty in prescribing stimulants and narcotics to be used habitually as remedies in chronic disease, or in not clearly and emphatically directing that these remedies are to be used only as temporary expedients, which must on no account be continued after the initial prescription has been exhausted—at least without further advice and a renewed prescription. And it may be added that the use of stimulants and narcotics in chronic diseases is not simply dangerous; in most cases the practice involves a medical blunder, since it serves to weaken the parts it was intended to strengthen, and so to perpetuate the maladies it was intended to cure.—*N. Y. Med. Record.*

GOLDEN RULES.—The following suggestions in abdominal surgery are said to come from a celebrated London surgeon: Always avoid purgatives in treating a patient who has swallowed a foreign body. Give opium and constipating food—boiled eggs, cheese, puddings, potatoes, etc. Never close any wound of the abdominal wall till all hemorrhage has ceased. Never, under any circumstances, apply pressure to a wound of the abdominal wall to arrest hemorrhage. Never mind increasing a superficial wound of the abdomen in order to remove a foreign body or to secure a bleeding point. Never probe any wound in the abdominal wall. Never forget that all abscesses of the abdominal wall should be opened freely and at once. Never hesitate or delay to open and drain an abscess in the loin due to rupture or injury to the kidney. Never procrastinate in strangulated hernia. It is not usually the operation which will prove unsuccessful in herniotomy; the danger lies in your allowing the bowel to become irrecoverable. Never be deceived by an opiate masking the acute symptoms of hernia, obstruction, peritonitis. Never tap a suspected renal tumor through the abdominal parietes, *i. e.*, through the peritoneum. Always relax the abdominal wall after suturing. Never ligate *en masse* in cutting off omentum; do it by piecemeals; the constricted edge of the apron of omentum may unravel, and fatal hemorrhage result. In protrusion of the viscera never neglect to pass your finger fairly through the wound to make sure that the reduction has been complete. And be careful never to push the bowel into an interstice between the muscle or into subperitoneal tissue.—*Med. Record.*

PECULIARITY OF DIABETIC BLOOD TO ANILINE COLORS.—It has long been known that, with eosin, normal blood cells assume a brownish color. Some time ago, Dr. Ludwig Bremer, of St. Louis, announced the discovery that with eosin, the blood of diabetes turns a greenish-yellow. After experimentation by Dr. Leowy, of Berlin, this discovery was confirmed in a report recently given at the Verein für innere Medicin.—*Virginia Med. Semi-Monthly.*

A SIGN OF CARDIAC FAILURE.—Henry Jackson, of Boston, calls attention to one of the signs of cardiac failure which is of great import, though it meets but little notice in the articles on this condition — namely, a discrepancy between the rate of the arterial pulse and the heart-beats. He has observed in many instances that in cases of extreme cardiac weakness the pulse was very slow, intermittent, and irregular, while the heart was rapid, and refers not to cases in which it is extremely difficult to count the pulse, as is always the case when the pulse is irregular, especially when the rhythm of the pulse is irregular, but to cases in which the most accurate taking of the pulse by trained individuals does not show a rapid pulse-rate, yet examination of the heart shows that its action is extremely rapid.—*Boston Medical and Surgical Journal.*

DISINFECTION BY FORMALDEHYDE.—Sprague (Med. News) quotes from the *Public Health* to prove that formaldehyde has no deleterious effect upon textile fabrics, hair, or leather, even though of the most delicate color. He has made independent researches to prove its effects upon cultures of diphtheria, anthrax, and typhoid. Cultures of these germs were protected in various ways. When exposed in the gas-chamber and wrapped in various coverings the germs were always killed. He used an apparatus in which he could get a high percentage of the gas as well as a constant percentage.

He believes that enough data have already been given to prove that with formaldehyde rapid and efficient disinfection may be secured, and without injury to the most delicate fabrics.—*University Medical Magazine.*

VAPOR BATH FOR A PATIENT CONFINED TO BED.—A writer in *La Presse Medicale* recommends the following method as an efficient means of causing profuse perspiration in patients who have to be treated in the recumbent posture: Spread a blanket over the bed upon which place the patient dressed only in his shirt. Under each foot and at each side of the body place a well corked stone ware jar of boiling water. Before being

placed in position each jar should be covered with a damp towel or several wet napkins, and afterward covered with a piece of flannel. After the jars are placed in position the blanket is folded over the patient and he is then covered with another blanket and an eider-down quilt.

In a quarter of an hour the patient finds himself in a real vapor bath, which brings out a profuse perspiration, lasting for a time varying according to circumstances. If it is considered advisable to increase perspiration warm drinks may be given.

In order to take the patient out of his vapor bath, the blankets upon which he lies and the jars are withdrawn without uncovering him and his body is dried under the second blanket and eider-down quilt, which are allowed to remain. After twenty or thirty minutes his linen may be changed.—*Medical Times.*

THE TREATMENT OF VAGINITIS AND ENDOMETRITIS WITH LACTIC ACID.—Waldimir Ilkewitsch (Centr. f. Gyn.) gives an account of his experiments with lactic acid in the treatment of vaginitis and endometritis. He bases his claim for the therapeutic value of this agent upon the following observations made by himself and other clinicians:

The acidity of the vaginal secretions is due chiefly to the presence of lactic acid, which is either a product of the bacillus doederleini or of the physiological activity of the vaginal walls, or both. He lays stress upon the fact that in 99 cases out of 100, when the vaginal secretions are distinctly acid, pathogenic micro-organisms cannot be found therein, or if so, their virulence is markedly impaired. In the secretions of the normal vagina of a pregnant woman 0.4 per cent. of lactic acid was found. The growth of the streptococcus pyogenes was inhibited when the bouillon culture contained 0.1 per cent. of lactic acid, though the staphylococcus pyogenes required 0.4 per cent. before it yielded.

The author irrigates the vagina with about 800-1000 c.c. of a 3 per cent. aqueous solution, and claims to effect therewith a complete destruction of all micro-organisms present. To cervical erosions and the uterine mucosa he applied the remedy in

strengths varying from 50 to 100 per cent. From a careful study of a limited number of cases he draws the following conclusions: 1. That the topical application of lactic acid to the endometrium markedly diminishes the amount of fluor albus; 2. That irrigation of the vagina with a 3 per cent. solution destroys saprophytic and pathogenic micro-organisms and cures colpitis; 3. That the same solution removes unpleasant odors; 4. Changes the color of the discharge from yellow-green to white; 5. That lactic acid is a safe remedy in ambulatory cases, even with an existing salpingo-oophoritis, and 6. The remedy will in many cases replace curettage.

The author finally adds that in view of the fact that the uterine cavity secretes an alkaline fluid and is in its normal state entirely free from the micro-organisms, he intends to compare the results obtained from the topical application of alkalies in endometritis with those arrived at by the use of lactic acid.—*Am. Gynecological and Obstetrical Jour.*

WHEN SHALL WE USE THE FORCEPS?—The *British Medical Journal* gives the following rules for using the forceps:

1. The indication for the use of forceps rarely or never arises during the first stage of labor, before the membranes have ruptured.
2. It may be necessary to employ the forceps during the first stage, when the waters have escaped on account of the increasing exhaustion of the mother or child.
3. It is proper to apply the forceps during the first stage of labor for accidents, whenever they may arise, notably in certain cases of convulsions, placenta previa and prolapse of the cord.
4. In the second stage it is proper to apply the forceps one-half hour after the head ceases to advance, when there is no disproportion between the passage and passenger.
5. When however, there is a tight fit between the child and the birth canal, the use of the forceps may be delayed. This delay should rarely exceed two hours after the head ceases to advance.
6. If the head has engaged, and neither advances with the pain nor recedes after the pain, the forceps should be applied promptly.—*Charlotte Medical Journal.*

A CASE OF CÆSAREAN SECTION FOR PREGNANCY COMPLICATED BY MALIGNANT DISEASE OF THE RECTUM.—Albert J. Riddett (*Lancet*) reports the case of a woman 37 years of age, VI-para, at term, who had been twenty-four hours in labor and was greatly prostrated, upon whom he performed Cæsarean section, owing to a malignant growth on the rectum that filled the pelvic outlet. The child was in transverse position. The abdomen was opened in the ordinary manner. An assistant firmly compressed both broad ligaments to control hemorrhage, and the uterus was opened by a median longitudinal incision. The fœtus and placenta extracted, and the uterus closed by twelve deep silk sutures. Superficial sutures were added to approximate the peritoneal coat. The Fallopian tubes were then ligated and removed. The abdominal wall was sutured in three layers (a) peritoneum with catgut, (b) the sheath of the rectus with silk, (c) the skin with silkworm gut. The woman made good recovery, The child, a boy, survived.—*Am. Gyn. and Obstet. Journal.*

PULMONARY EMPHYSEMA.—

R. Sodium arseniate.....1 grain.
Potassium iodide,
Powdered rhubarb, of each.....32 grains.
Extract of dulcamara,.....q. s.

M. Divide into thirty-two pills. One to be taken daily for the first few days, then two a day.—*Indian Lancet.*

PSORIASIS.—A formula published by M. Richter is:

R. Ichthyol,
Salicylic acid,
Pyrogallic, of each.....gr. xlv.
Olive-oil,
Lanolin, of each.....3 iiss.

M. Sig.: For external use.—*Le Progres Medical.*

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, N. Y.

Editorial.

NATIONAL QUARANTINE THE ONLY MEANS TO A SATISFACTORY END.

Some years ago we advocated in the pages of this journal time and again the prime necessity of active and satisfactory measures being taken by the National Government to secure adequate protection from the invasion of preventible epidemic diseases, urging the need of a National Department of Public Health, properly organized and equipped as being fully justified by the experiences of the past. The matter, however, was relegated to the Marine Hospital Service, and we quietly rested on our oars, and have waited patiently to see just what we expected, viz: a failure in a very important and vital field, once! yes! twice and three times! With the culmination and decline of the last visitation, we thought the time oportune to again take up our former line of argument, sincerely hoping that our national law-makers would give this subject the consideration it demanded. The last epidemic and the two preceding ones were reasonably slight as compared with former visitations, but even they caused sufficient loss of life and property interests to have justified far more effective measures of precaution. It has been demonstrated that both cholera and yellow fever can be kept out of the United States—if so, somebody is certainly to blame. The Marine Hospital Service having proven ineffectual, our national law-makers must shoulder the responsibility if they do not provide something better. With both branches of Congress and the Executive head of the government in the hands of one party—and that 'party one that has ever shown strong leanings to centralism and paternalism, is it not to be hoped that strong and effective measures on the part of the National Government shall at once be set on foot and the means of relief given in accordance with the demands of the times. The ineffectual efforts of the Marine Hospital Service, the discordant and irregular methods of State, municipal and local authorities should no longer be tolerated. From one end of the land to the other the people have spoken time and again. Will our law-makers heed their voice and outcry of unison, or will they longer dilly-dally with a question far more important than tariff-tinkering, the currency or acquisition of adjacent islands in either the Atlantic or Pacific.

The report from Edwards, Miss., by Associated Press dispatches of January 26th, that the yellow fever in that locality has not disappeared gives serious apprehension that the disease may survive the winter and appear again in epidemic form with the coming of warm weather. There

has been practically no winter along the gulf coast, and as January is nearly spent, it is probable that there will be no weather sufficiently severe to destroy the germs. If yellow fever appears again on the gulf coast its spread over the entire South can be prevented only with great difficulty, and as much to be dreaded as the disease itself is the faulty and hysterical quarantine that impedes commerce, prevents travel, produces business stagnation and causes many hardships and inconveniences without effectively checking the spread of the disease.

The experience of last year gave proof not only of the insufficiency, but of the positive harmfulness of State and local quarantines. Intelligent co-operation between these bodies seems impossible. They are lacking in means, financial and otherwise, to properly grapple with the necessities of the situation, and having no general direction or concert of purpose their efforts are worse than futile.

Quarantine is essentially an interstate matter. It must necessarily in some degree effect the regulation of interstate commerce. To be effective there must be general direction and uniform conduct, and that can be given by the National Government only.

The continuance of yellow fever on the gulf coast, therefore, with the strong probability that it will again become epidemic in extreme Southern localities with the coming of warm weather, demands the speedy passage of adequate and effective means by Congress. A bill should be passed in time for the Government machinery necessary for an effective quarantine to be organized and put into operation before the beginning of summer.

Nashville has no fear of a visitation of yellow fever. The immunity of the table-lands of Middle Tennessee from the spread of the disease has been thoroughly demonstrated, but Nashville has a very near interest in the proper regulation of the quarantine. The trade of the city suffered greatly last fall because of the prevalence of shotgun quarantine throughout the region to the south of us, wherein the representatives of Nashville houses constantly travel.

The State of Tennessee has a very strong interest in the establishment of proper quarantine laws, because all of the western portion of the State is subject to the ravages of the disease.

The Gulf States are vitally interested in this question, and to every State in the Union by both sympathy and interest, it is a question of paramount importance that should be met in only a practical manner, regardless of old-time traditions of State rights, or party slogan, or a partisan feeling. It is a question that demands the highest order of Statesmanship regardless of party success or present or future personal welfare of those to whose solution it is entrusted.

A CHEAP IMPROVISED BATH.—In this day and at this time, when the Brandt method of treating fever is assuming so much importance, the fol-

lowing suggestion of Dr. A. C. Haven, of Lake Forest, Ill., in the *New York Medical Record* of January 8th, may prove useful to some of our readers. After mentioning the Furbush bath, made in Philadelphia, and the Burr bath, of Chicago, both portable and enabling the patient to be bathed in bed, he says:

"A still cheaper bath may be improvised out of a clothesline, a dozen ordinary wooden clothespins, and three yards of table oilcloth. Tie a loop of rope firmly around the headboard, another around the footboard, and connect by two parallel ropes. Attach oilcloth with clothespins, and you have as comfortable a bath as the most expensive, at a cost not exceeding seventy-five cents. The loops around the headboard and footboard may be dispensed with in metal beds. Four feet of garden hose with a wooden plug in one end makes an excellent siphon. Such a bath I have now in use.

I believe I have simplified the bath so that it is within the reach of all. The materials for the simpler form can be obtained at any country grocery store; and the more elaborate one which I have described can be sold at less than half the usual price of such luxuries, and I believe it is far simpler and equally efficient.

My only desire is to extend the benefits of the bath to the masses. The patient in the crowded tenement and in the country farmhouse can be shown by his physician in a moment how to obtain the benefits of that health-given fluid—cold water."

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gology;" of "External Diseases of the Eye;" of "Venereal Diseases;" and "Skin Diseases." Other *Atlases* will shortly follow thereafter. Each contains from fifty to one hundred plates, besides numerous other illustrations in the text. These *Atlases* have been produced by the best artistic and professional talent in the most elegant style, and will be offered at a price heretofore unapproached in cheapness. In fact, the very low price decided on will place these *Atlases* within the reach of even the novice in practice.

The 1898 "Year Book" (Gould), former issues of which have proven so satisfactory, is about ready for issue. Van Valzah & Nisbets' "Diseases of the Stomach," Keen's "Surgical Complications" and "Sequelae of Typhoid Fever," Chapin's "Compendium of Insanity," and (Bang's and Hardaway's) "American Text-Book of Genito-Urinary and Skin Diseases," will be issued during February. A number of other excellent books are in preparation for early publication.

DECEMBER 29, 1897.

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late, phenacetin, antipyrine and exalgin had been prescribed without any effect, by means of *Kryofin* alone very prolonged relief from pain was effected. The drug was prescribed in 7½ grains three times a day.

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Reviews and Book Notices.

A CLINICAL TEXT-BOOK ON SURGICAL DIAGNOSIS AND TREATMENT, FOR PRACTITIONERS OF SURGERY AND MEDICINE. By J. W. MACDONALD, MD., Graduate of Medicine, University of Edinburgh; Licentiate Royal College Surgeons, Edin.; Professor of Practice of Surgery and Clinical Surgery in Hamline University, Minneapolis, etc. Royal 8vo, cloth, pp. 798, price \$5; half morocco \$6, net. W. B. SAUNDERS, 925 Walnut Street, Philadelphia, Publisher. 1898.

From the author's preface we make the following extract:

"The rapid advances made in the art of surgery have caused the literature of the science to grow apace. Systems of surgery in many volumes, and text-books of large dimensions, are now deemed necessary to cover the field. The practical part of the surgeon's work is, however, almost limited to two questions which he must answer every time his professional advice or help

is sought. The first question is, 'What is the disease or injury?' The second question is, 'What is the proper treatment?'

While I would not for a moment underestimate the importance of a profound study of the principles of surgery, of surgical pathology, or of bacteriology, the present work will be confined to a solution of the two questions just mentioned, with the view of putting into the hands of students and practitioners a single volume containing the most practical part of practical surgery."

We can commend the volume to those engaged in the study of surgery, as well as to those who are actively engaged in practice, and congratulate the author on the production of a work that will prove valuable for study and ready reference.

The latest points in both diagnosis and treatment, a field that has proven so fertile in the domains of surgery in the recent past are fully brought out, and it is in every way an up-to-date work. The numerous illustrations are most excellent, and the mechanical execution is as good as could be desired.

MANUAL OF PATHOLOGY, Including Bacteriology, the Technique of Post-mortems, and Methods of Pathologic Research, by W. M. LATÉ COPLIN, M.D., Professor of Pathology and Bacteriology, Jefferson Medical College, and Pathologist to Jefferson Medical College Hospital, and to the Philadelphia Hospital; Bacteriologist to the Pennsylvania State Board of Health, etc., etc. Being a Second Edition of the Author's "Lectures on Pathology," re-written and enlarged. 8 vo. cloth, pp. 638, with 278 illustrations, many original. Price, \$3.00. P. BLAKISTON, SON & Co., 1012 Walnut St., Philadelphia, Publishers. 1897.

All of the practitioners of this city and many of the members of our State Medical Society have pleasant feelings of remembrance of the very competent and talented author of this excellent work, and regret exceedingly that the attractions of "Jefferson" occasioned his withdrawal from this section; yet the important and valuable volume he has placed within our reach will serve in some manner to recompense us for our loss and Philadelphia's good fortune in regaining so able, affable and agreeable, as well as erudite and capable teacher and writer. The title of the work given above, and the following extracts from the "Preface of the Second Edition" will serve to show

its scope: "During the winter of 1894 and 1895, Messrs. P. Blakiston, Son & Co. published in serial form, abstracts of the writer's lectures, entitled "Lectures on Pathology." At the close of the college session, the fasciculi were bound and the resulting volume placed on the market. Very much to the surprise of the publishers, as well as of the writer, the edition lasted less than nine months. It was exhausted at a time when the teaching of the college year precluded the revision which the matter so much needed. During the past six months the entire book has been revised, the larger part having been entirely re-written. The first edition contained two hundred and fifty pages and fifty-one illustrations; the present volume, in the face of every effort to condense without sacrificing accuracy, has reached six hundred and thirty-eight pages and contains two hundred and sixty-eight illustrations. The most difficult problem has been to keep the volume from assuming undesired dimensions, and, now that the work is completed, the writer wishes to say, parenthetically, that a volume of twice the size could have been produced with probably less labor."

"In conclusion, the writer wishes to submit the volume, not as a treatise or work of reference, but, as its title indicates, as a manual which he hopes may be useful in the laboratory, post-mortem room, and in clinical diagnosis by the aid of the microscope."

A brief examination of this work shows that it has been prepared with care and close attention to details, and it will unquestionably fill the niche in medical literature for which it has been designed. It is clear, full and comprehensive, and for the student it will prove of incalculable value.

SKIN DISEASES OF CHILDREN. By GEORGE HENRY FOX, A.M., M.D., Clinical Professor of Diseases of the Skin, College of Physicians and Surgeons, New York; Physician to the New York Skin and Cancer Hospital. Royal 8vo., cloth, pp. 166, with 12 Photogravures and Chromographic Plates, and 60 Illustrations in the text. Price \$2.50, net. Wm. Wood & Co., New York, Publishers. 1897.

This work is based on a series of most excellent papers, originally contributed to the *American Journal of Obstetrics* during 1896, and which have been fully elaborated, and to which an

unusually large and very complete formulary has been added, increasing very materially the value of this distinguished author's most excellent work. While not a complete dissertation on all the cutaneous disorders of childhood, it will serve exceedingly well as a concise and practical treatise on the symptomatology and treatment of those eruptions which are most likely to come within the domain of the family physician in his care of children. The following subjects are graphically delineated: Alopecia Areata, Ringworm and Favus, Contagious Impetigo, Psoriasis, Ichthyosis, Eczema. Papilloma Lineare, Pigmented, Hairy and Vascular Nævus; Lupus, and other Tuberculæ, Lichen Ruber and Planus, Hereditary Syphilis, Erythema Nodosum, Purpura, Molluscum, Keratosis Follicularis, Keloid, and Scabies. The Formulary consists of sixty-five pages. The Index is full and complete. The Illustrations most excellent.

THE PSYCHOLOGY OF SUGGESTION—A RESEARCH INTO THE SUBCONSCIOUS NATURE OF MAN AND SOCIETY. By BORIS SIDIS, A.M., PhD., Associate in Psychology at the Pathological Institute of the New York State Hospital; with an Introduction by Professor James, of Harvard University. 8vo., cloth, pp. 386. D. APPLETON & Co., Publishers, New York, N. Y. 1898.

Professor James in his introduction says: "Much of the experimental part of the work, although planned entirely by Dr. Sidis, was done in the Harvard Psychological Laboratory, and I have been more or less in his confidence while his theoretical conclusions, based on his later work in the Pathological Institute of the New York State Hospitals, were taking shape." "I am not convinced of all of Dr. Sids' positions, but I can cordially recommend the volume to all classes of readers as a treatise, both interesting and instructive, and original in a high degree, on a branch of research whose importance is daily growing greater."

The brief examination only that we have been enabled to give this work shows it to be one of more than usual interest, and the consideration given the three parts into which it is divided—Suggestibility, The Self, and Society, evinces the fact that the author has given the subjects careful study and has evolved a book that is both attractive and instructive.

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Vol. XX.

NASHVILLE, MARCH, 1898.

No. 8.

Original Communications.

A CASE OF PANCREATIC CYST TREATED BY INCISION AND DRAINAGE, WITH COMMENTS.*

BY ALBAN DORAN, F.R.C.S., OF LONDON, ENGLAND,

In the case of ovarian cysts in the early days of ovariotomy there were at least two points fairly definite. The nature of the cyst was, as a rule, easy to determine, at least anatomically. Its removal was clearly the right course to pursue, whatever the dangers of the operation might be. On the other hand, the precise nature and relations of a pancreatic cyst are not always to be made out even by an exploratory operation, nor is it certain that its extirpation is always justifiable even if practicable. Drainage after incision, disastrous for an ovarian cyst, seems to answer well when the cyst is connected with the pancreas.

* Read at a meeting of the Medical Society of London, Dec. 13, 1897.

A patient study of the pathology, diagnosis, and treatment of the disease in question can only ensure progress in the right direction. Already the literary records of pancreatic disease within the past twenty years have grown voluminous, and the whole subject cannot be discussed satisfactorily in one memoir. The present communication will therefore consist simply of an account of my own case, with comments on its principal features based upon the experience of others.

E. H., aged 24, single, domestic servant, a patient of Dr. J. Williams, of Connaught Street, W., was admitted into my wards at the Samaritan Free Hospital on May 21, 1897, on account of a prominent abdominal tumor. To all appearances she was a cheerful, well nourished, healthy-looking girl, who might have passed for 18 or 19 years of age. Her complexion was perfectly clear, free from sallowness, jaundice, or from any of the usual signs of anaemia, nor did her features express suffering. Her pupils were much dilated, and the uvula elongated. The pulse was 84, the temperature normal or subnormal.

The history was somewhat at variance with these appearances. Four years previously she had suffered from melancholia, and the affection returned a year later, lasting over ten months. She was very quiet during the attacks, but then, as in hospital, she was restless at night, often jumping out of bed in her sleep. No history of any fall or injury could be obtained, but it is clear that she might have injured herself under the above circumstances.

For the last two years her friends noticed that the abdomen was enlarging. Nearly eighteen months ago she had fits of spasmodic pain in the epigastrium with nausea, but no vomiting. These pains gradually became more frequent, though not very violent, and, before admission, occurred about every third or fourth day. She, however, gained rather than lost flesh, and her mental condition greatly improved.

The abdominal tumor was remarkably prominent, and still more remarkably movable. Fig. 1 shows the range of its mobility. As the patient lay down it appeared to be seated in the left part of the abdomen superiorly, reaching the left loin, the ribs, and the umbilical region; it extended to about 2 inches beyond the middle line to the right, and 3 inches below the um-

bilicus. It could, however, be pushed to the right till it was perfectly central in position; then there was a clear note in the left loin, and resonance between the tumor and the liver.

The tumor fluctuated distinctly, and its surface felt very smooth. There was no resonance on percussion, excepting occasionally in the course of the first week in hospital, when a clear note could be obtained over a soft prominence on the lowest limits of the tumor to the right. It was evidently part of the alimentary canal, and proved to be the stomach.

Fig 1.

Fig. 1.—Sketch showing range of mobility of pancreatic cyst. Author's case. a. Site of a bulging soft structure, which proved to be the stomach.

The uterus was small and movable, and unconnected with the tumor. I explored the pelvis carefully, as I have removed tumors from the lumbar and hypochondriac regions which proved to be ovarian cysts twisted off their pedicles. The urine was perfectly normal, nor was there any evidence of any hepatic or thoracic disorder. The feces were solid, fairly dark, and never pale.

Altogether, the tumor seemed to me to be most probably

renal, but I thought of cysts of the pancreas and transverse mesocolon. Unfortunately, the clinical history of spasmodic pain in the epigastrium was not obtained till after the operation. The patient stoutly declared before it that she had never suffered from any pain. Just a day before the operation the history of the two attacks of melancholy was obtained. When the nature of the tumor was made clear, Dr. J. Williams succeeded, not without great trouble, in getting a complete clinical history. Not knowing the above history, I did not think pancreatic disease very probable.

I strongly object to paracentesis in cases of doubtful tumor, for I know of selected "dull" areas proving to be empty flattened-out gut, and I dread blood-vessels and papilloma. On May 29, 1897, I made an exploratory incision, assisted by Mr. Targett, beginning close below the umbilicus. I had to enlarge the wound freely, upwards and downwards, for the first object I discovered was the stomach drawn tightly over the front of the cyst anteriorly and inferiorly. (Fig. 2.) The lesser omentum was stretched over the upper part. The great omentum hung from the lower border of the stomach, freely downwards; its vessels were extremely dilated and tortuous. It hung down, free from any adhesions, reaching to the hypogastrium, and bore much fat; the transverse colon was completely below the cyst. The pelvic organs were normal. I passed my hands up behind the great omentum, and found that the tumor lay too high to be tapped below the level of the umbilicus. I noticed that the transverse mesocolon was certainly not opened up, nor was the mesentery involved.

Having divided two inches of the lesser omentum on the most important part of the cyst, I exposed a distinct wall, and there was no trace of clot. By the aid of an aspirator, 44 ounces of fluid was drawn off. This fluid was opaque, greasy, ochreous, and free from odor. The Clinical Research Association examined the fluid, and sent me the following report (Mr. Targett carefully searched for hooklets, but could find none, nor was there any trace of old hydatid membrane):

"July 18, 1897. This fluid is faintly alkaline, of a dark-straw color; specific gravity 1011, free from odor; it contains a

considerable quantity of albumen. On standing, an oily substance formed on the surface, consisting of fat and cholesterine crystals. There was also a crystalline precipitate which proved to be insoluble in alcohol, chloroform, or ether, and was certainly not fatty in nature. In appearance the crystals suggested tyrosin, but did not give the reaction of this substance; the quantity was too small for identification. On microscopical examination, no hairs or other characteristic elements were found.—H. C. WELLS, Secretary."

Fig 2.

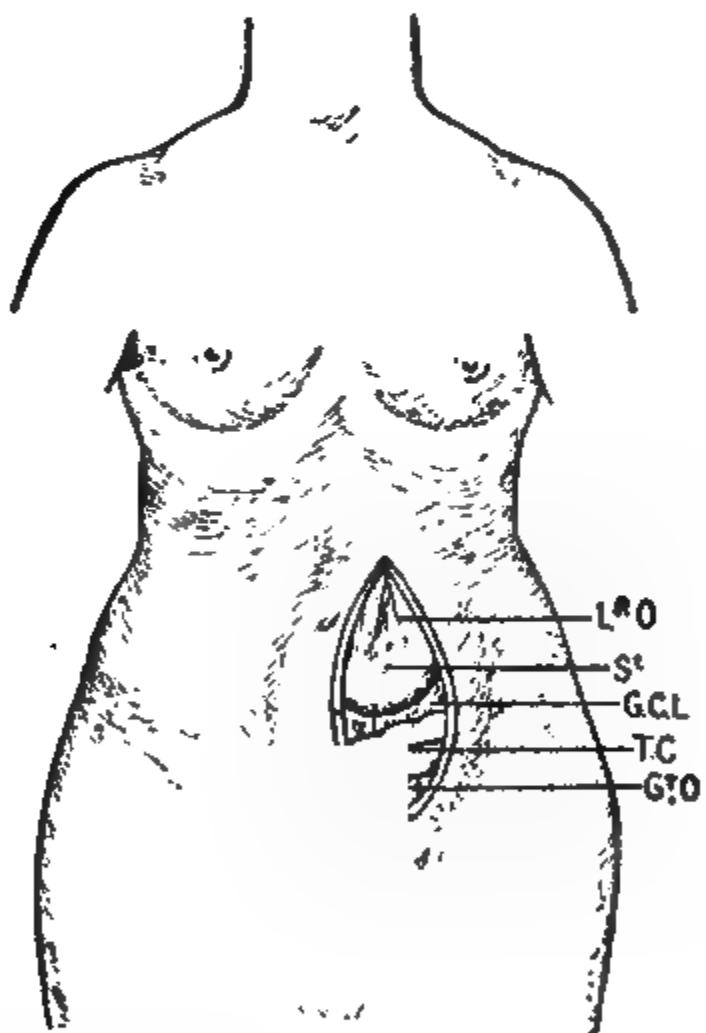


Fig. 2.—Parts exposed at operation. Author's case. Lr. O., lesser omentum on cyst; St., stomach on cyst; G. C. L., "gastro-colic ligament, below cyst; T. C., transverse colon; Gt. O., great omentum, below colon. (See Fig. 4.)

Fixing a T-forceps on the puncture in the cyst, now well collapsed, I searched with my hand above and to the right and left of the cyst. There were no adhesions, the kidneys and

spleen could be felt, the diaphragm was not involved, the liver and gall bladder was quite healthy. The base of the cyst did not reach either loin, but was incorporated with a wide area of the pancreas immediately to the left of the head. I cautiously attempted to enucleate the cyst around the puncture, but big veins soon appeared, and I thought it best not even to excise a portion of the cyst wall. As I found that it sprang from the pancreas, and that no pedicle could be formed as in certain cases where a pancreatic cyst had been successfully excised, I did not contemplate the total removal of the tumor.

I determined upon thorough drainage, with precautions. I sewed the parietal peritoneum and the cut borders of the lesser omentum to the cyst wall all around the puncture, using No. 1 China twist. I passed deep silkworm-gut sutures into the abdominal wound above and below the cyst, tied them and trimmed away the umbilical cicatrix. To make sure that the cyst was held secure, and acting on a suggestion of Mr. Targett, I passed a No. 4 silk, both above and below the puncture, through all the layers of the wound, the lesser omentum and the cyst wall, and tied the two silks.

Lastly, the T-forceps was taken off, the puncture enlarged, and a 6-inch glass drainage tube passed into the cavity of the cyst. The wall of the cyst was tough, and about an eighth of an inch thick, its outer surface pale yellow, its inner looked dull red and spongy, but was not vascular. The wound was now dressed, and the patient returned to bed.

After-treatment.—The patient went on very well after the operation, but gave some trouble, owing to two complications. An attack of tonsillitis and urticaria set in at the end of the first week, when the weather was intensely hot, but soon subsided, the temperature never rising higher than 100.6°. More serious was the great restlessness during sleep, an old-standing nervous symptom. When awake, the patient was remarkably quiet and obedient; directly she fell asleep, excitement set in, and she tried to slip out of bed. Her brother informed us that he was troubled in the same way after an operation for hernia, and he seems to have been a somnambulist from childhood.

Owing to the restlessness, I removed the glass tube on the second day, and replaced it by 6 inches of red-rubber tubing.

From first to last there was free discharges from the cavity of the cyst, staining the dressings; for a day or two after the operation it was pinkish and turbid, but for two weeks afterwards it appeared as a colorless, slightly viscid, alkaline fluid, like saliva. According to two reports prepared for me by the Clinical Research Association, this colorless fluid had an extremely well-marked amylolytic power. Towards the end of the month the fluid got mixed up with discharge from the granulations in the integument around the drainage track, and hence could not be satisfactorily analyzed.

Although there was much urticaria on the chest and hypogastrium at the beginning of the second week, the skin round the drainage tube never showed any sign of irritation.

The treatment consisted in washing out the cavity daily with a 1 to 20 solution of sulphurous acid. After the middle of the second week the patient rapidly gained flesh. She was discharged on July 7, 1897. The abdominal wound had united well; it was 4 inches long. The drainage track, opened nearly 3 inches below the ensiform cartilage, and was about $3\frac{1}{2}$ inches deep. The temperature had been quite normal for three weeks, and the patient was strong and able to walk about. There was still enough daily discharge to soak through two layers of gauze and stain the strappings laid over them. A short piece of tubing was left in the orifice of the track, which I thought advisable to keep open for awhile.

At the end of November the patient was in excellent health and grown stout. The discharge during the first fortnight, which she spent at home, had been very scanty and thick, owing to pus from the granulations around the drainage track in the parietes. Once or twice a week a few drops of clear fluid issued from the track. The last occasion on which I examined the abdomen was November 17th. The cicatrix was strong, the epigastrium concave, and no trace of any tumor could be felt on palpation. The integuments showed no sign of irritation. Having described the case, I will now discuss its principal features of interest.

Age of the Patient.—The patient in this case was of an age at which pancreatic cystic disease is relatively frequent—indeed, a quarter of 100 recorded cases occurred in men or women be-

tween 20 and 30 years old. The oldest case was 76 (Stieda)*. On the other hand, the youngest patient, who was under the charge of Dr. Railton, of Manchester, was a female infant, 6 months old. The tumor in this instance was a true cyst springing from the tail of the pancreas; its wall was thick and tough. The youngest patient submitted to an operation was a boy under 4 years of age (Schoenborn, see Heinricius). He recovered after incision and drainage with iodoform gauze.

Dilatation or Contraction of Pupils—The pupils were much dilated before and after the operation. In Treves' case they were contracted almost to pinholes before the abdomen was opened, and remained so for a fortnight afterwards, just as though the patient were under morphine. Theodore Fisher, however, doubts, whether the tumor in this case was a true pancreatic growth and not a peritoneal sanguineous cyst. I cannot find any more facts of general value in respect to this question of the pupil in the disease under consideration.

Absence of Glycosuria.—The urine was perfectly normal before and after operation. I have no time to dwell on that deep physiological question — the relation of diabetes to pancreatic disease. Sugar may be absent in the urine when much of the pancreas is taken up by the cyst. On the other hand, Horrocks, of Bradford, recently observed glycosuria in a man, aged 56, who died of exhaustion. A large cyst occupied the site of the pancreas; no normal glandular tissue could be found, and the duct of Wirsung could not be entered by a probe. At the duodenal end of the cyst, however, a stone of the size of a pigeon's egg was felt loosely impacted in the contiguous common bile duct. Churton's case of pancreatic cyst with diabetes is better known. Very remarkable is Zweifel's experience. In his patient the urine was free from sugar when first examined, then he removed the pancreatic cyst. On the eleventh day sugar appeared in the urine and did not disappear for three weeks. In my own case the faeces throughout seemed healthy.

*Eine Pankreascyste, *Centralblatt fur allgemeine Pathologie u. pathol. Anat.*, vol. iv, 1889, p. 449. This cyst was accidentally found at the necropsy of a woman, aged 76, who had died of bronchitis. It sprang from the substance of the tail of the pancreas. The wall was "tough connective tissue, poor in cells," and the cavity contained blood.

The pulse, 84 before operation, was usually about 96 during convalescence. Perhaps the relative slowness before the cyst was emptied was due to irritation of the vagus from pressure on the solar plexus. There was never any dislike to fats or any other article of food.

Injury as a Cause of the Disease; Epigastric Pain as a Diagnostic Feature.—The history of melancholia is of interest, as depression is noticed in cystic disease of the pancreas. The chief importance of this complication, in my own case, lies in the possibility of injury during one of the attacks of restlessness from which the patient suffered at the same time. The relation of pancreatic cysts to injuries of the pancreas is well known, but time will not allow me to discuss it. I failed to trace any history of direct violence as is common in the blood cysts of the lesser cavity of the peritoneum, so well described by Theodore Fisher and Jordan Lloyd.

On the testimony of her relatives the patient suffered from fits of spasmodic pain, as I have stated. She denied that she ever suffered, and it was not until after the operation that I, with the assistance of Dr. J. Williams, learned the truth. Her declaration that there had been no pain misled me. We know, however, that pancreatic cysts do not always cause marked pain. On the other hand, other rare tumors in the upper and middle part of the abdomen are painful. In the case of Gooding, of Cheltenham, (a cyst of the great omentum) there was sickness and occasional vomiting after meals, and a great deal of shooting and aching pain in and about the tumor. Precisely the same symptoms have been noted in patients with pancreatic cysts.

The patient had gained flesh shortly before the operation, which in itself would seem remarkable, since the cyst had a broad attachment near the head, and was of considerable size. Emaciation is seen under such circumstances, and it is observed when a large blood cyst presses on the pancreas. I will dwell no longer on this symptom, however, as I think it of little value in this case. The gain of flesh was due no doubt to the disappearance of the mental depression which had troubled her previously.

Broad-based Tumors may Feel Movable; Fluctuation.—The tumor could be moved laterally, yet its base was fairly broad,

ORIGINAL COMMUNICATIONS.—DORAN.

re was no pedicle. Similar lateral mobility, however, is perfectly sessile broad ligament cysts, which rise high in the pelvis, especially when they are not very tense. The majority of pancreatic cysts appear to be movable. Fluctuation is noted, and Heinricius finds that this symptom is the rule, Treves declares that "fluctuation is very seldom to be denied."

ping Objectionable, even for Diagnosis.—I repeat that I object to paracentesis in cases of doubtful abdominal tumor.

I have seen fatal results even where the greatest skill had been at the patient's disposal. Experience shows that if the tumor prove to be a pancreatic cyst, the danger is considerable. Churton demurs to treatment by incision in diabetes, and prefers aspiration, "even if requiring repetition."

"Diabetic patients," he writes, "are more likely to be prey to septic infection, as happened in the present case." I cannot agree with such an opinion. Dr. Churton's case died a year after incision of the cyst. On the other hand, I feel inclined to leave alone altogether one of the diabetes—at least, until Dr. Churton or some other able physician has cured the diabetes. Again, in Karelowsky's, Le Dendre and Jacobson's cases the stomach was inadvertently perforated by the aspirator. Such an accident is best avoided, even though we know that, as in Annandale's case, aspiration may encurate diagnosis. Escape of cyst contents may cause symptoms, as in the case of McPhedran (Montreal), where an incision was made and the abdominal wound dressed without aspiration—a practice even more dangerous in cases of this disease than aspiration. Senn's theory—that normal pancreatic juice cannot hurt the peritoneum—does not apply here, for the juice is seldom if ever normal in the cyst, though it often becomes so after draining.

Dilatation of Vessels of Great Omentum.—The extreme dilatation of the vessels of the great omentum, entirely below the diaphragm, was remarkable. Theodore Fisher has already noted that they are often enlarged in pancreatic cystic disease, and in the blood cysts of the lesser peritoneal cavity (Jordan Case 2). On the other hand, cysts of the great omentum appear to cause dilatation of its vessels. There was no

dilatation in Simon's case, in Sir Spencer Wells' case (where I assisted), nor in Dr. Bantock's, which I described sixteen years since; nor is this condition noted in Gooding's, Ormsby's, or Hearn's cases.. As in Hearn's and Ormsby's, the cyst was mul-

. Fig 3.

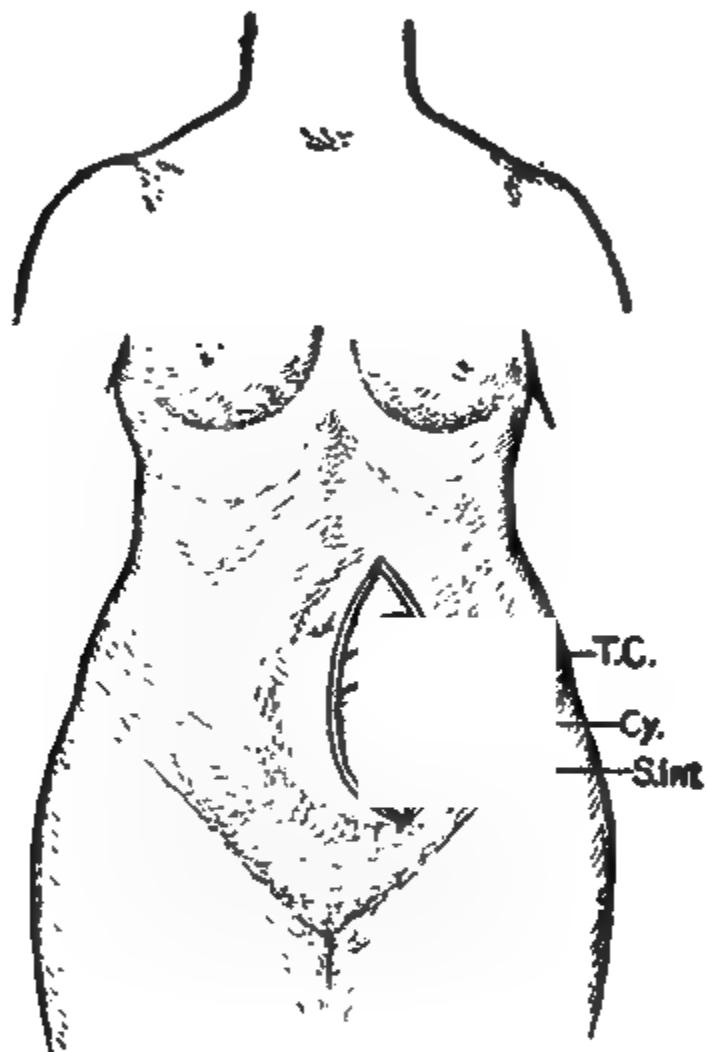


Fig. 3.—Parts exposed at operation. Von Hacker's case (after Hersche). The transverse colon (T. C.) lies deep on top of the cyst (Cy.), which is invested in front by the descending layer of the transverse mesocolon. The small intestines (S. Int.) are seen below the cyst. (See Fig. 7).

tilocular (indeed, there was solid matter in Ormsby's cyst), the great omentum was likewise quite healthy. It does not become liable, when a pancreatic cyst develops, to disseminated fat necrosis such as Körte has seen in suppurative pancreatitis.

Surgical Importance of Defining Peritoneal Relations.—The relation of the cyst to the adjacent peritoneal folds is one of the most interesting features in cases of this kind; but as a general

subject it is so well known that I need not dwell on previous experience of any length. Hersche, in his commentary on von Hacker's case (Fig. 3) gives the best description of the different ways in which a pancreatic cyst may displace the peritoneum.

First, the cyst may project into the lesser cavity of the peritoneum, pushing forward the lesser omentum. The stomach

Fig 4



Fig. 4.—Pancreatic cyst in lesser cavity of peritoneum. The anterior aspect of the cyst bears the lesser omentum and stomach as part of its capsule. (Author's case; see Fig. 2.) P., pancreas; Cy., cyst; St., stomach; T. C., transverse colon. (Figs. 4 to 8 are after Hersche and Heinrichius.)

will then lie on the lower part of the front of the cyst* (Fig. 4). This is the highest position, in respect to peritoneal folds, that a

* The surgeon must remember that when writers speak of the stomach, colon, etc., lying "on" a pancreatic cyst, they mean that these viscera actually form part of its capsule, as the colon does in a large renal cyst.

pancreatic cyst can occupy, and it is a rare position. Hersche and Heinrichius can only find a few examples (Riegner, Kariewsky). My own case comes in this class. What settled the class in the case under discussion was the fact that not only did I see the lesser omentum and stomach on the face of the cyst, but found the upper part of the great omentum ("gastro-colic ligament") hanging freely from the lower border of the stomach, which precisely corresponded to the lower border of the

Fig. 5.

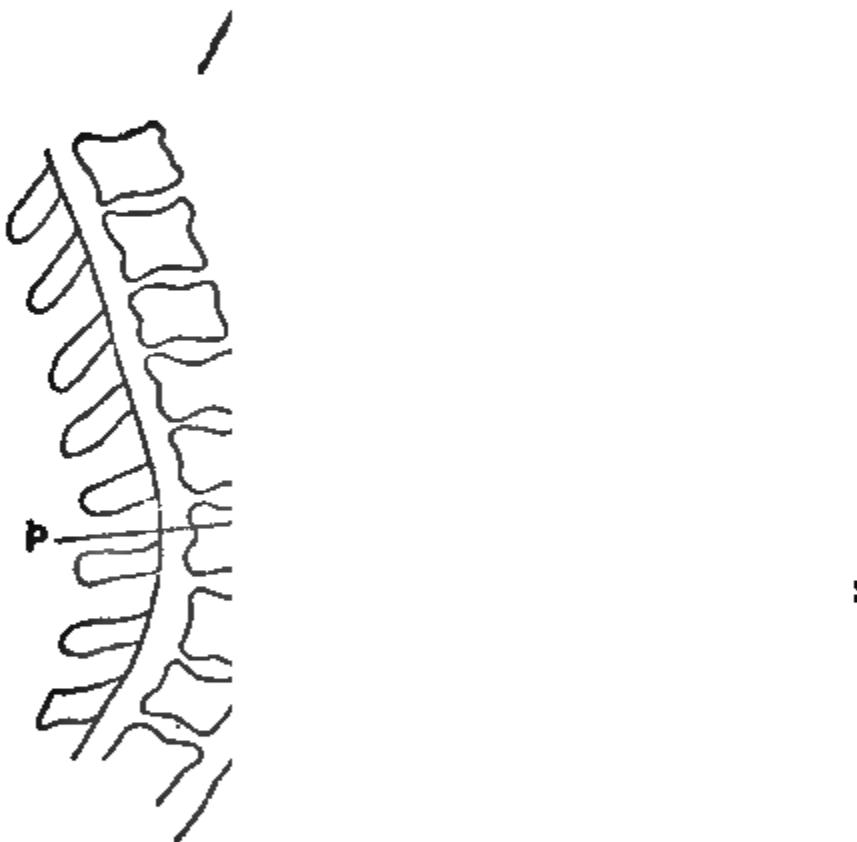


Fig. 5.—Pancreatic cyst in lesser cavity of peritoneum, but lower than in Fig. 4, the stomach is investing its upper part. (McPhedran's case.)

cyst, and I noted that the transverse mesocolon passed entirely under the tumor.

More frequently, when the lesser cavity is occupied by the cyst, the great omentum, especially its gastro-colic portion, is stretched forwards, then the stomach lies on the upper part of the front of the cyst (Fig. 5, McPhedran's case). Then, as

Hersche has lucidly demonstrated, if the layers be opened up evenly, the colon must lie across the middle of the cyst. He notes, however, that experience shows that the layers tend to get opened very unevenly. Then when the upper layer of the transverse mesocolon is invaded, the transverse colon must lie on the lower part of the front of the cyst (Salzer's case, Fig. 6); if the lower layer be principally involved, the colon, as in

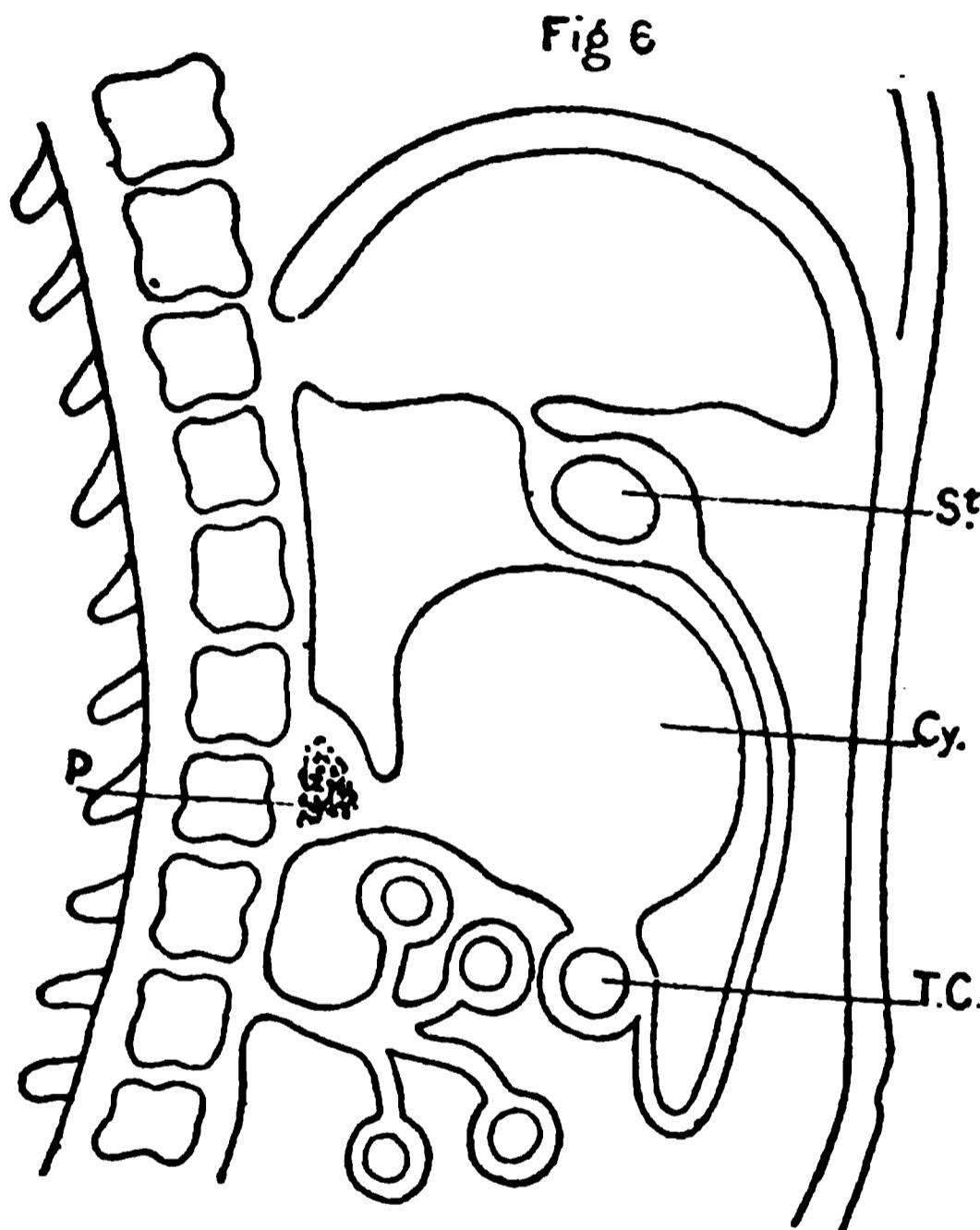


Fig. 6.—Pancreatic cyst, chiefly invested by the upper or ascending layer of the transverse mesocolon. The colon lies low on the anterior surface of the cyst. (Salzer's case.)

von Hacker's case, will be found on the upper part of the front of the cyst (Fig. 7). This latter form as Hersche shows is rare. Lastly, the lowest position for the cyst is in the general peritoneal cavity below the lower layer of the transverse mesocolon (Fig. 8). Heinricius declares that his second case was of this class; in another instance (Shattuck and Bernard) the mesentery invested the front of the cyst. The colon and its mesentery

lay free from the cyst and far above it, as in my case they lay free from the cyst and well below it. Thus Hersche's simple demonstration will always aid the operator if he bear it in mind, and will make much handling unnecessary.

The relations of the cyst to the peritoneum anteriorly were very evident in my case. As to posterior relations, I suspect that growths of this kind sometimes burst through [the perito-

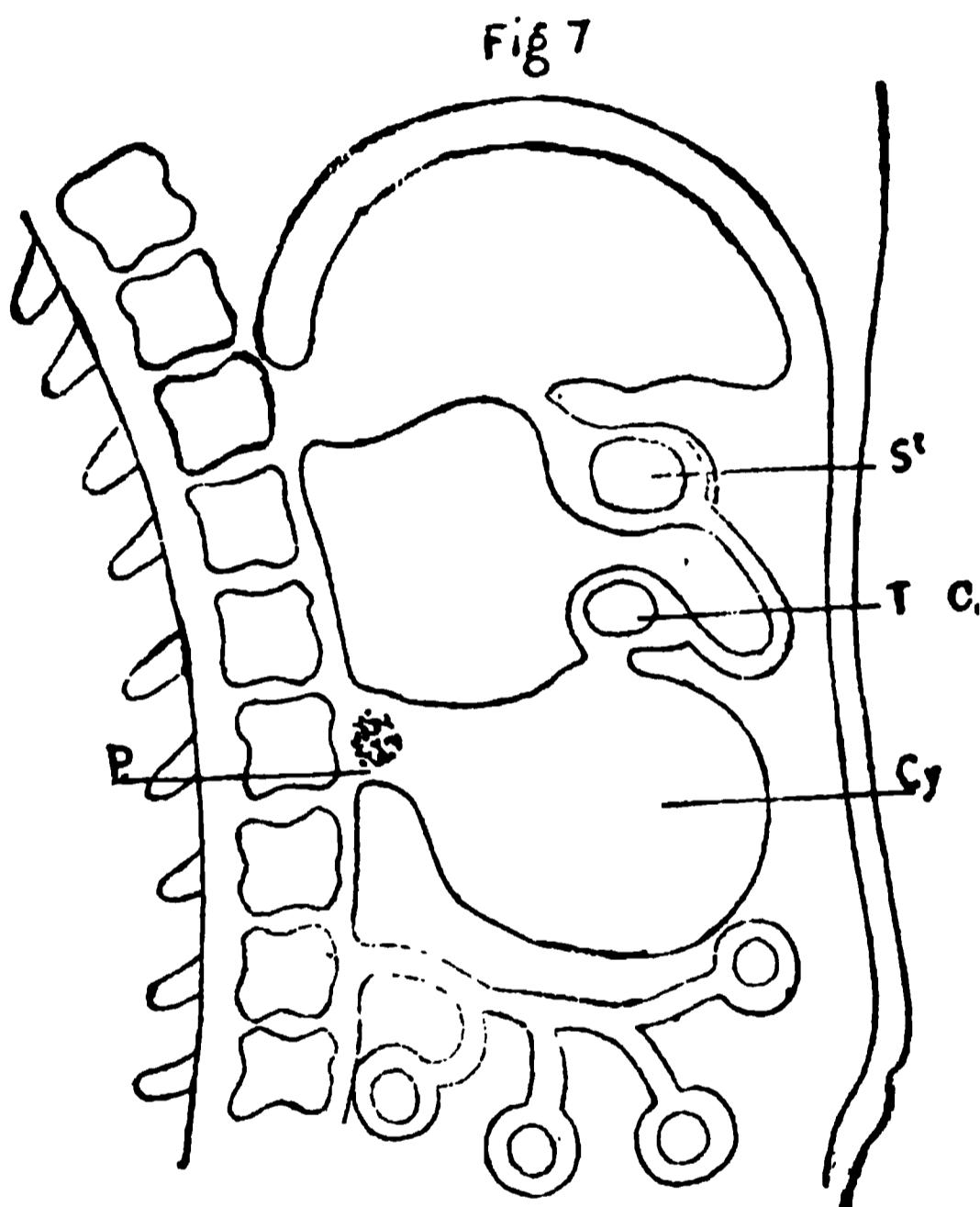


Fig. 7.—Pancreatic cyst, chiefly invested by the lower or descending layer of the transverse mesocolon. The colon lies high on the anterior surface of the cyst. (Von Hacker's case; see Fig. 3.)

neum in front of the pancreas so that their outer wall lies free in the lesser peritoneal cavity. Körte and others have shown that rupture of the peritoneum seems common when effusions due to pancreatitis (Körte) or hemorrhage (Jordan Lloyd) near the pancreas press forwards. Very probably a cyst sets up inflammatory irritation at first, and then perforates the peritoneum. This would account for the occasional freedom of the descending layer of the transverse meso-colon from any part of

the cyst, as I observed at my own operation. Let us remember the relation of the body of the pancreas to that fold, and also bear in mind Herreche's demonstration that the same layer has been known to form the capsule of the cyst, the colon being then stretched over the lower part of the cyst wall. It is difficult to see, then, how a cyst could avoid pushing forwards the ascending layer of the transverse mesocolon unless it perforated

Fig. 8.



Fig. 8.—Pancreatic cyst in the peritoneal cavity, entirely below the transverse mesocolon. (Heinricius's case.)

the peritoneum, actually in contact with the pancreas, at a very early stage of its development. A cyst might push forward the peritoneum above the pancreas if it rose entirely from the upper margin of that gland, but in my case the cyst was fixed by a broad attachment to the anterior aspect of the pancreas.

The Wall of the Cyst.—I have little or no doubt that the

wall of the cyst was a true wall, and not a product of inflammation. I did not cut away a portion for microscopic examination, as I was specially anxious not to let a drop of fluid escape into the peritoneal cavity. We all know that these cyst walls sometimes contain pancreatic glandular tissue, a proof that they arise from the pancreas and not from organization of lymph around blood after injury, or inflammatory products after pancreatitis. The cyst wall most likely carries many acini along with it as it grows. In this way we can understand why it is often cured by drainage, which would only stimulate the growth of neoplastic glandular tissue in a cyst wall. In Pearce Gould's second case, evidently malignant, this kind of growth possibly existed. But the experience of draining and of extirpation shows that pancreatic cysts are usually of a simple type, and therefore destitute of elements with proliferating power. The traces of glandular tissue detected by Cibert, Heinrichius, and others may be pathologically similar to the Wolffian elements which von Recklinghausen detected in the walls of the Fallopian tube and uterus in very old subjects. They are foetal relicts which probably exist in all women, yet rarely burst into growth. The glandular tissue in the wall of a pancreatic cyst probably lies latent in the same way, though something more than a foetal relic.

The microscope has been so freely used by competent authorities that the pancreatic origin of the cyst wall itself cannot be doubted. Hence I need dwell no further on the pathology and causation of these cysts as compared with sanguineous effusions, merely observing (since peritoneal relations are so important to the surgeon) that neither can open up the layers of the great omentum in an adult, as some writers seem to believe, since those layers are obliterated early in life.

Lumbar Drainage Not Always Practicable.—The base of the cyst, in my case, did not reach either loin. Thus it would have been useless to tap or drain through the loin, as Pearce Gould and others have done. In Gould's case, where the patient was of the same age as mine, the tumor, which had no defined cyst wall, projected in the lumbar region. Gould recommends drainage from the loin whenever the cyst can be easily pushed to below the twelfth rib, but it should be first explored from the front, and R. Leith, who gives valid reasons for preferring lum-

ORIGINAL COMMUNICATIONS.—DORAN.

rainage as a rule, admits that anterior incision and drainage is in movable cysts which come well forward.

Defining Attachment of Cyst at Operation: Question of *K.* The base of the cyst was sessile, involving the body of pancreas immediately to the left of the head. About a third of the recorded cases are thus inserted, the great majority attached to the tail (Nimier). I explored the cyst from above, and easily made out its relations. I did not deem it necessary to examine the interior. The insertion of a pancreatic cyst can easily be definable from without (Steele of Chicago and others), whilst searching from within for a calculus (Roswell) is barely worth the risk. In the Bernard Pitts and Shattock cases the calculi lay in a loculus, not in a duct opening into it—the ideal theoretical position for obstruction. Let it be remembered that even in a necropsy the relation of a pancreatic cyst to the normal duct is often difficult to demonstrate. In Dr. Mu's infant nothing more was found than a dimpling of the surface of the cyst at the site of attachment to the pancreas.

In Mérigot's well-known case, where a blood cyst primarily otherwise connected with that organ absorbed part of its wall by pressure, "the principal pancreatic duct was longitudinally incised, and then found to disappear in the wall of the cyst.....where it was lost."* These conditions could not be detected by any amount of searching inside a cyst at an operation.

In Durante's case the cause of obstruction was an *ascaris* in the duodenum, but it was not discovered till after death.† An *ascaris* might easily escape the most careful search at an operation, besides experience shows that the cause of obstruction was quite exceptional in this case. Above all, pathology teaches that this calculus hunting, recommended in some systems of works, is a wild-goose chase. Mr. Targett, as well as Drs.

I have taken the above quotation from the author's own report "Le hématoïde de l'abdomen, siège entre le pancréas et l'estomac: tomie, mort, autopsie," Merigot de Treginy, *Bulletins de la Société Pathologique de Paris*, vol. ix, 4th series, 1884, p. 428.)

This remarkable case was imperfectly reported in Italian and German journals. Professor Durante kindly sent me his original memoir in which where an attempt had been made to detach the cyst from the pancreas, "si vede pendere in corrispondenza del dotto Wirsungiano un rotondo riconoscibile.....per l'avanzo di un ascaride."

Goodhart and Theodore Fisher, are all opposed to the theory that a pancreatic cyst is usually due to blocking of a duct by any agency. On the other hand, the risks of handling the interior of a pancreatic cyst are not visionary, for it is liable to slough, (Wölfler, Karewski Hersche).*

Objections to Total Removal of Sessile Pancreatic Cysts.—Finding that the base of the cyst had a broad attachment to the body of the pancreas near the head and no pedicle, I did not attempt the total removal of the tumor. I objected to face the self-evident risks of a radical operation when I knew that drainage answers very well, and is attended with little peril.

The surgeon must not in dealing with these purely cystic tumors dwell too much on cases of solid growths of the pancreas, which have been successfully removed by Sendler, Ruggi, and possibly Pearce Gould. The tumor in the latter case is now in the College of Surgeons (Pathol, Series, 2354 C), but was apparently confined to the lesser omentum.† These solid tumors, if not left alone altogether, must be taken away. Krönlein removed very rightly an angio-sarcoma "as big as a fist." The patient did well for a few days, but died on the seventh from gangrene of the transverse colon due to ligature and division of the colica media artery near its roots.

Extirpation of a cyst of the pancreas is, on the other hand, not essential to cure. Poncet admits that his own successful experience was not encouraging, and in that case the base was attached to the tail of the pancreas, the most favorable position for a radical operation. Seven pairs of forceps were left projecting from the abdominal wound, besides another of larger size fixed to the pedicle. On the second day the seven were removed. On relaxing the big forceps blood freely rose out of the wound, so it was tightened again and the bleeding ceased. It was removed on the seventh day, and free discharge of fetid pus followed. On the fifteenth day the temperature was 104°, and not till a day later could the Mikulicz drain, inserted

*In von Hacker's case, where much sloughing followed drainage, the process probably began before the operation, where the cyst walls were found very friable and the cavity full of broken down material.

†The report of this successful case will, Mr. Gould informs me, be duly published.

at the operation, be removed, as the least handling set up dangerous bleeding.

Another latter-day operator, Heinricius, of Helsingfors, who has twice successfully removed a pancreatic cyst, frankly admits that the operation is not always practicable or justifiable. In his first case the base of the cyst stretched like a pedicle from the pancreas, and was treated as such by double transfixion with silk and divided, leaving on retraction a cut surface as large as a florin. In the second the patient was pregnant, and the tumor diagnosed as ovarian. After enucleation from its peritoneal capsule, the base was found inserted on to the pancreas. It was ligatured with silk and divided; then, as the pancreas fell back, severe hemorrhage took place from several points in its tissue, and ligatures had to be applied by means of curved needles (*Umstechung*). The risk of this necessary manuvre is self-evident to all who remember the relations of the pancreas. The patient recovered, and was delivered of a live child five months late. In Paul Eve's (of Nashville) case, which must be studied from the original report,* "a short pedicle was found attached to the body of the pancreas close to the head of this organ." The transverse colon and mesocolon were torn. The pedicle was easily treated by a Staffordshire knot, and a portion of the pancreatic substance removed with the pedicle. There was little or no haemorrhage during this operation, and no other ligatures were required. The omentum was fixed to the denuded colon. Recovery was rapid. The extirpated cyst grew from the tail of the pancreas—a favorable position, in cases where the operators were Poncet, De Wildt, Zweifel, Clutton, Mikulicz, and others. My colleague, Mr. Malcolm, will presently report a case of this kind. Kosinski's case is imperfectly reported.

The danger of extirpation lies chiefly in the size, and at the same time the difficult accessibility of the important blood vessels lying near the pancreas. What happened in Krönlein's case might occur in removal of a cystic tumor. In one of Mikulicz's two cases the splenic artery was incorporated with the cyst wall and had to be divided and ligatured. De Wildt had to tie the splenic vein, which proved difficult. Bozeman had a relatively

*Philadelphia Medical and Surgical Reporter, Vol. 64, No. 19, May 9, 1896.

easy experience; the artery in the pedicle was as large as the brachial, but was secured in the pedicle ligature, no other ligature being required. In Mr. Clutton's well-known case, where a portion of the pancreas had to be excised with the cyst, "the cut surface of the gland required many ligatures to arrest bleeding, and even then it continued to ooze, apparently on account of its friable nature, which made it difficult to apply a ligature without tearing some of the surrounding tissue." In Billroth's case both the splenic artery and vein were tied, and the patient died on the tenth day.

Now, it is questionable whether the surgeon ought to perform an operation where the splenic artery may have to be tied whilst simple drainage answers so well. The artery, however, can be seen, though it lies so deep in the abdomen. Unfortunately free bleeding from the surface of the pancreas required in several of these cases ligature by means of curved needles. This practice (*Umstechung*), so valuable in pelvic surgery, is not always safe even in the pelvic region, for the ureter may be tied and large vessels wounded. In the vicinity of the pancreas the danger is even worse, and manipulations are much more difficult.

Out of about a dozen reported cases—I speak indefinitely, as Kosinski's, at least, is doubtful—two died, though neither of these were recent. Several were believed to be cysts of other organs—von Hacker, Heinricius, etc., "ovarian cysts," De Wildt "hydronephrosis" *—and the final step taken when it was too late to do anything else. For partial excision of the cyst is questionable, though, out of 8 cases, the 3 deaths all occurred over ten years since. I am, however, exceedingly sceptical about the completeness of these reports. To my knowledge more than one fatal case has not been published. Sir Spencer Wells removed a pancreatic cyst in 1877, and I made a *post-mortem* examination a few days later. Death was from sepsis, not from haemorrhage. A portion of the base of the cyst was left on the body of the pancreas.†

*The true nature of the cyst was not recognized until it was drawn out of the operation wound, and the tail of the pancreas was seen to run into its base.

†In his last work, *Diagnosis and Surgical Treatment of Abdominal Tumors*, 1885, Sir Spencer Wells writes (p. 206): "But pancreatic cysts must be very rare, as I have never seen one." He informed me afterwards that he had made an oversight.

Thus some bold surgeons have succeeded in extirpating more or less sessile pancreatic cysts, nor will I deny that, for reasons some of which have been given, their operations in particular were justifiable. Certainly they were triumphs of skill. In general, however, I consider that when a pancreatic cyst is distinctly sessile extirpation is unjustifiable, and it did not seem advisable in my case. The base was very broad. A fistula is not a very serious after-result, yet it seems about the worst likely to occur if drainage be properly managed. Nor do such cases suffer after the fashion of patients with biliary fistula.

Drainage and its Effects.—I determined therefore upon thorough drainage, with precautions. It may be asked why a pancreatic cyst should be touched at all. The chief reason for operation is that fatal rupture may otherwise occur (Roeckel). In Dr. T. Savill's case the precise nature of the disease was doubtful. Fatal haemorrhage is not unknown (Bécourt). Reddingius related, in 1892, a case of fatal peritonitis from sloughing of the cyst and escape of its contents; and here the patient was like mine, an active young girl exposed to injuries. Again, the cyst may become of inconvenient size, as in Martin's case, left alone for seventeen years.

Lastly, experience shows that incision and drainage performed with ordinary precautions give almost uniformly good results. Out of about 70 published cases of incision and drainage only 5 died, excluding 1 of Pearce Gould's cases that lived four years afterwards, when cancer appeared. Hartmann's died in six weeks of cancer, which must have existed at the time of operation. Richardson lost a case from perforation of the stomach six months after operation ; it was of traumatic origin. Reeves's patient died of a low fever of uncertain origin nearly five months after incision. Durante's case does not come strictly under this head as part of the base was detached at the operation. Bull's patient was diabetic, and he did the operation in two stages. The recovery of over 60 cases is, I admit, remarkable. Some at least of these pancreatic cysts bear not only secondary cysts but also distinct glandular elements in their walls.*

*In a case where Mr. Bernard Pitts drained after incision, the cyst was actually multilocular. One cavity contained calculi. Mr. Pitts kindly informed me (October 12th, 1897) that a sinus remained for a few months, but ultimately closed.

An ovarian glandular cyst would only be made worse by such treatment. The truth remains, however, that drainage cures pancreatic cysts for reasons which I have endeavored to explain this evening. The cyst in my case was small after it had been tapped, and needed no trimming as in Bernard Pitt's two cases. The precautions which I took to avoid fouling of the peritoneum and to fix the cyst securely have been sufficiently described, and I need not dwell on the dressing. Sulphurous acid is a very good stimulant.

The contents of the cyst were certainly mixed with broken-down constituents of blood and something like tyrosin, and the discharge remained very composite for a few days, then pure pancreatic fluid escaped, as has been observed before; later on the natural secretion was fouled with pus from granulations. The elements of blood are common in old cysts in any region, and do not necessarily imply in this case that the disease was primarily an effusion of blood.

Although my patient had a very tender skin and was worried with urticaria, the flow of pancreatic juice, fairly free at one time, never set up irritation of the surrounding skin, though it ran from June till about the first of October. In some cases the discharge remains bland for several weeks, and then becomes irritant (McPhedran), probably because it is at first diluted with serum or blood, and later becomes charged with an extra strong proportion of digestive principles. In cases like my own, though the discharge was pancreatic fluid, and was amylolytic, it must have been too weakly charged with those principles to damage the skin.

DEATH FROM ETHER.

BY PAUL F. EVE, M.D., OF NASHVILLE, TENN.,
Professor of Surgery in the Medical Department of the University of
Tennessee.

I desire to report a case of death from ether, which occurred at the Surgical College Clinic in the Medical Department of the University of Tennessee.

At my regular clinic, Mrs. B., age 22, appeared for the removal of a sarcoma of the right breast, on February 16, 1898. Her heart and lungs were carefully examined, as well as the condition of kidneys ascertained, and no trouble found in these organs. On the administration of ether, which was carefully attended to by Drs. L. Case and C. L. Brown, she at first developed symptoms of slight bronchial irritation, but these soon subsided and she apparently took the anæsthetic very nicely. The extirpation of the breast proved very easy, enucleation being made in about five minutes, and not more than an ounce of blood was lost. Immediately after enucleation the patient became cyanosed and died despite every effort to resuscitate her.

Selections.

CHOLERA IN JAPAN.—In view of the important events happening now in the far East, any information concerning Japan is of interest. Dr. W. F. Arnold, of the United States navy, has published in the "Report of the Surgeon-General of the Navy for 1897" a most valuable paper on cholera in Japan. It is stated that the first appearance of cholera in Japan was in the year 1822, and that the disease was introduced into the country by means of Dutch ships from Java. The second epidemic outbreak, according to Japanese accounts, was from 1858 to 1860, when, if local traditions can be relied on, it caused several hundred thousand deaths. Davidson, of London, asserts that one hundred thousand deaths occurred in Tokio in one month. With the third epidemic in Japan, the reliable history of the disease begins. This happened in 1877, and was ascribed by the Japanese to an English man-of-war which put in at Yokohama, with one of her crew dead from cholera. The fourth epidemic broke out in 1881 and 1882, and the fifth in 1885 and 1886. The sixth outbreak of cholera on a large scale was in 1891 and 1892, and the seventh and last, in 1895, was without doubt a result of the war between China and Japan. Although an enormous amount of work has been done among the Japanese in

the way of instructing the common people how to avoid infection with cholera, yet there are many risks to the public health maintained everywhere in the way of primitive waterclosets, while the water supply in the large towns is defective. An unusual incident of the efforts to instil into the minds of the common people the necessity of cultivating habits likely to afford them immunity from cholera has been, says Dr. Arnold, the establishment of a microscope in a temple. It is said that the demonstration of the living organisms in water to housewives was much more impressive than were lantern exhibitions or any other means of illustration. The opinion of Davidson that cholera is of late years endemic in Japan is not in accordance with the conclusions arrived at by Dr. Arnold, who says that "it would appear that the conditions of life favor the survival of the cholera vibrio the least in Japan, where the dark, hot, and crowded living-rooms of the Chinese do not exist. In general the life of the cholera vibrio is longest in dark, moist places at room temperatures."

On the other hand, Dr. Arnold goes on to say: "The primitive arrangements serving as waterclosets throughout Japan, the conservancy of human excrement, and the liability of many water supplies to contamination, are conditions as favorable to the requirements of the cholera vibrio as could have been supplied by design. Under these circumstances, there would appear to be little difficulty in understanding both the customary subsidence of cholera in Japan in the late autumn and the comparatively numerous but widely scattered cases of the year or years succeeding. Other countries, in which infection is more infrequent, have shown, and are now showing, instances of the survival of cholera vibrios that are more noteworthy than any of the recent experiences of Japan. They are not expected to become permanent homes for the cholera vibrio, whence it may be carried to yet other countries; and I doubt if Japan has much to fear in this direction."—*Medical Record*.

BORIC ACID, so valuable in cystitis, may cause digestive disturbances, in which case it may be given best an hour before food and at 10 P. M., making four daily doses.—*Slocum, Ex.*

PROFESSIONAL ETIQUETTE.—The following is told of the late Sir William Gull, and as illustrating the doctor's maxim that it is necessary before all else that the patient shall have confidence in his medical adviser. Being called in haste to a patient under the care of a very young practitioner, Sir William found that brandy-and-water was being given at intervals, with certain other treatment. The great physician carefully examined the patient, and said: "Give him another spoonful of brandy." He then retired to a private room with the young doctor in charge. "It is a case of so-and-so," he said, as soon as the door closed; you shouldn't have given brandy on any account." "But," said the junior practitioner in amazement, "I thought, Sir William, that you just told the nurse to give him another spoonful." "So I did," said the great man. "An extra spoonful of brandy won't hurt him, but we mustn't destroy his confidence in you, or he'll never feel comfortable or believe anything you tell him again."—*Peoria Med. Journal.*

[Alas! Alas! Such "Gulls," like angels' visits, are few and far between.—ED. S. P.]

SUPRAPUBIC CYSTOTOMY.—Professor John Wyeth, in the *New York Polyclinic*, in speaking of suprapubic cystotomy, says:

1. The parts of the field of operation and where the urine might flow, should be shaved.
2. The patient should rest in full extension upon a table.
3. It is of advantage to have the hips higher than the shoulders; as the weight of the intestines will be thus removed from the bladder.
4. Rectal distension is never necessary.
5. Water is the best thing with which to extend the bladder.
6. The longitudinal incision beginning one inch above the margin of the symphysis pubis and two inches long is the best.
7. Arrest hemorrhage as the operation proceeds.
8. The size of the incision in the bladder must be regulated to suit the individual case.
9. The peritoneum should be dissected up from the bladder, and if cut or torn should be sutured at once with catgut.

10. Close the opening in the bladder when the case will admit of it by using catgut and the Lambert suture.

11. Pack the superficial opening with iodoform gauze and let it close by granulation.

12. The bladder must be kept empty for three days, either by frequent catheterization or by leaving the instrument tied in the bladder.—*Med. and Surg. Bulletin.*

VEHICLE FOR CASTOR OIL.—A new method for disguising the disagreeable taste of castor oil is recommended by Klein (Pharm. Central). Fifteen to twenty grammes (say one-half fl. oz.) of the oil are mixed with a glassful of milk and heated under constant stirring. In a few minutes a perfect emulsion is had, to which is then added a little syrup of orange flowers, resulting in an active preparation of an agreeable taste. Another method consists in shaking castor oil with brown beer in a bottle, or mixing the two in a jar with a rotary motion. This is said to yield a mixture that is very agreeable to take—*Times and Register.* [At any rate—there is more of it.—ED. S. P.]

Editorial.

NATIONAL QUARANTINE: ASKING FOR BREAD, ARE WE TO RECEIVE ONLY A STONE?

Almost the united voice of the medical men of the United States, emphasized by resolutions from the representative medical organizations of the country, including the American Medical Association, the American Public Health Association, and both State and local medical societies and associations have gone out in an appeal of most striking unanimity in behalf of a Department of Public Health, with a properly qualified representative of the medical profession as a member of the President's Cabinet, the Department to be organized like other departments of the National Government.

Yet, at this time, about all that is in sight, or that seems to be having favor with our national law-makers is the "Caffery Bill." This bill has been published in the *Journal of the American Medical Association*, Feb. 5, 1898, and is defective in that it still retains this most important and vital

question in the hands of the Marine Hospital Service, which, so far, has shown itself inadequate to meet the needs of the occasion. Furthermore, one clause in the bill, by which the rules and regulations, to be formulated by the Secretary of the Treasury, are to be enforced by the State or municipal authorities at their option, and in the event of the State and municipal authorities failing or refusing "to enforce said rules and regulations, the President of the United States shall execute and enforce the same," will certainly result in a repetition of former dismal failures.

This clause is a "sop to the State's rights whale," and will result in locking the stable door only when the horse has been stolen. If there is a need for the Chief Executive to take this matter in hand, he can surely accomplish far more satisfactory results if he alone, or through his direct representative, is fully empowered to act and is held responsible therefor. To wait the action of State or local authorities is not only dangerous, but will sooner or later prove disastrous, and if State rights are to be ignored if State and local authorities do not act, in the interests of the whole country, it would be far better to lay this pet doctrine aside *ab initio*, just as in case of foreign invasion of armed men, or domestic insurrection and internece strife.

No, the "Caffery Bill" is entirely insufficient and inadequate. We should not rest until proper and adequate measures are thoroughly constituted, as they can only be by a well equipped Department of Public Health. It has been said that this is asking too much. That it is more than can be expected or more than will be granted by Congress. While in many cases "half a loaf is better than no bread," the facts have shown that a niggardly, "penny wise and pound foolish" policy has been absolutely worthless. State and local health authorities have an important work to do in keeping up to the highest possible hygienic standpoint their immediate vicinage. The invasion of exotic epidemic diseases, and their spread from one state to another, or from one locality to another, is beyond the preventive measures of any State or municipality, and requires National interference, yes National, with the biggest sort of N., just as do the foreign trade relations of the several States with foreign countries and nationalities. Texas cannot regulate her commerce with Mexico, the great States on our lake borders cannot control the trade relations with Canada, our Gulf States their commercial and social intercourse, with the Atlantic islands and Central American Republics, and it is no interference whatever with the State's rights theory that these matters are vested solely in the hands of the National Government. In the earlier days of this republic, with its then more sparse population, its materially limited intercourse with foreign people, and that between the States and localities, this great need was not apparent any more than was there a need for a Department of the Interior or Agriculture—but with the passing of time and the great increase of our population and facility of travel such needs arose, and were promptly met by those in authority. Another need now of most vital importance, as emphasized by the history of the last fourth of a century, is at hand, and shall it still be met as in the past, with meas-

ures that have proven as effectual as dipping the ocean dry with a sieve.

In the *Journal of the American Medical Association* of February 12th appears a very rational and practical letter from one of the leading physicians of Chicago, one well known in the councils and deliberations of the American Medical Association, as well as in his State and local medical societies. I do not know whether he is a Repuplican in politics, a Gold Bug Democrat, a Free Silverite, or a Populist, yet I do know him to be a reputable, capable and progressive member of the medical profession, who, like all good doctors, is more, yes, far more, interested in the welfare of his people than the success of any party. His communication is headed: "A Genuine Department of Health versus Psychic Sanitary Measures; Which?" and is given in full as follows, without further comment at this time:

CHICAGO, Feb. 7, 1898.

To the Editor:—I was curious to learn the purport and meaning of the "Caffery Bill," pertaining to legislation for the hygienic welfare of the people of this country and, after reading the same as published in the *Journal* (February 5th, pages 330-331), I can say that I am utterly opposed to this substitute bill.

To my mind this substitute bill is not what the medical profession nor the great majority of the people of this country desire. It has very little semblance looking toward the establishment of a genuine department of health as a separate branch of our government, and I will venture the prophecy that the views of 90 per cent. of the members of the medical profession throughout the United States are not in accord with this proposed substitute bill which has been suggested to take the place of the bill that has been carefully prepared by the special committee of the American Medical Association, and which was introduced into the Senate by Senator Spooner, of Wisconsin, on January 27th last, and is known as Senate Bill 3433.

There may be mugwump bacilli or psychic bacilli that science and sanitarians will have to contend with in the far distant future, but for the present generation at least, we are entitled to, and should be afforded the most ideal and thorough scientific department of health that it is possible to contemplate, exactly on the theory that when any person or any of our national legislators of either house of Congress, or within their domestic fireside are stricken with disease, they desire the best medical skill obtainable.

We are admonished that, presumably within a week or two, this substitute bill known as the Caffery bill will be introduced into the House, and our influence and work must necessarily, for some time at least, now be exerted with representatives in Congress. Shall this be done?

Before closing, I might with propriety propound this query, also (which is not intended so much for the aggrandizement of our profession as some might be led to believe).

Would it not be well for the President's cabinet to be dignified by the acquisition of a scholarly and thoroughly scientific medical secretary

exactly on the same principle as the presidential family is composed of gentlemen versed in diplomacy in matters of state, finance, the judiciary, the science and art of war, etc.

Let us have a department of health, therefore, as has frequently been outlined in the *Journal*, on the same theory that if we want a spade, a spade will be provided for us and not a spatula, or if we ask for a stick of wood, that a wooden tooth-pick will not be substituted.

Very sincerely yours,

LISTON H. MONTGOMERY, M.D.

TENNESSEE STATE MEDICAL SOCIETY.

The time for the Sixty-fifth Annual Meeting of this now venerable, time-honored and representative medical organization will soon be at hand, and it is earnestly to be hoped that the meeting at Jackson, beginning Tuesday, April 12th prox., will be largely attended. Jackson is the interior metropolis of the western portion of the State, easily accessible by M. & O., I. C., and N., C. & St. L. R. Rs., and their connections. It is a beautiful city, now of some 15,000 or more inhabitants, in a fertile country, with good hotels, good streets, and a population well noted for intelligence, refinement and that innate quality of all Tennesseans of true, hearty and most unbounded hospitality. Its medical men have always held high rank in the State Society, and will leave nothing undone to enhance the success and enjoyment of the meeting.

The active and energetic Secretary has sent out the following circular letter, which we reproduce in full, it being possible that some of our readers may have mislaid the copy sent them, and we wish to keep them all well in mind of the coming meeting, about which we will have more to say in our next number.

MEDICAL SOCIETY, STATE OF TENNESSEE,
Office of W. D. HAGGARD, JR., Secretary,
NASHVILLE, JANUARY 17, 1898.

MY DEAR DOCTOR:—I wish to remind you of the approaching meeting of the State Medical Society, which convenes at Jackson, Tuesday, April 12, 1898. It is desirous to make this one of the most profitable and interesting sessions, as it is somewhat of an innovation for the Society to meet elsewhere than the respective cities of the three divisions of the State heretofore chosen. We are assured of a most hearty and hospitable welcome at Jackson, and I write you thus early to ask that you contribute a paper on some subject of your own selection, and advise me at once of the title that it may appear in the preliminary programme, now being made up.

Kindly give this your immediate attention.

Yours very sincerely,
W. D. HAGGARD, JR.,
Secretary.

THE MEDICAL SCHOOLS OF NASHVILLE.

The winter course of instruction in our most excellent medical schools is now rapidly drawing to its close, and the terrors of the "final exam." are looming up in dread proximity to the third course men in attendance, exacting from all the closest attention to duty and the details of the curriculum. The present session has been most satisfactory on all sides, and with over 600 medical students in attendance this winter our former prediction that the changes entered into a few years ago would only result in good have been fully substantiated.

The Capital City of Tennessee, with its easy approach from any section of the land, the culture and intelligence of its people, the thorough and able corps of medical men engaged in teaching, the agreeable climate, neither too hot nor too cold, leave but little to be desired by the neophyte as he enters the portals of medical science.

From our contemporary, *The Memphis Medical Monthly*, we publish the following extracts, which appeared in its exceedingly interesting pages some months ago.

"UNIVERSITY OF TENNESSEE, MEDICAL DEPARTMENT.—After glancing over the list of members of the faculty of this college and noting the well-known medical men whose names are found thereupon, we no longer wonder at the fact of this school's popularity, nor at the ability of its graduates. In clinical resources this college is liberally provided.

UNIVERSITY OF NASHVILLE, MEDICAL DEPARTMENT.—It is only necessary to announce that the next annual session of this school will be its forty-seventh in order to acquaint ourselves with the fact that this college has stood well the test of time, which is the most crucial of all tests. In appointment the college is thoroughly up to date and well prepared to impart instruction in medical and surgical science.

VANDERBILT UNIVERSITY, MEDICAL DEPARTMENT.—The name Vanderbilt is synonymous, in an educational sense, with excellence, and that this is well borne out by the medical department of Vanderbilt University, at Nashville, Tenn., has been evidenced by the success of this institution in the past. Their elegantly appointed building, inexhaustive clinical resources and capable faculty combined are a guarantee of unprecedented strides in the future."

A DREAM; ALAS! HOW TRUE!

An exchange relates that once a farmer had 2,000 bushels of wheat, which he sold, not to one single grain merchant, but to 2,000 different dealers, a bushel to each. A few of them paid him in cash, but the greater number said it was not convenient then, but would pay later. A few months passed, and the man's bank account ran low. "How is this?" he said. "My two thousand bushels of grain should have kept me in affluence until another crop is raised, but I have parted with the grain and have instead only a vast number of accounts, so small and scattered

that I cannot get around and collect it fast enough to pay my expenses." So he posted up a public notice and asked all those who owed him to pay quickly. But few came. The rest said, "Mine is only a small matter, and I will go and pay some of these days," forgetting that though each account was small, when all were put together they meant a large sum to the man. Things went on thus; the man got to feeling so bad and rolled and tossed about so much in his efforts to collect that he fell out of bed and awoke, and running to his granary found his 2,000 bushels of wheat still safe there. He had only been dreaming and hadn't sold his wheat at all.

Moral.—The next day the man went to the publisher of his paper and said: "Here, sir, is the pay for your paper, and when next year's subscription is due you can depend upon me to pay it promptly. I stood in the position of an editor last night, and know how it feels to have one's honestly earned money scattered all over the country in small amounts.

—*Neal's State Gazette.*

ASEPTOLIN—EDSON—Aseptolin is a fluid designed mainly for hypodermatic use, but may also be used by the rectum. When properly injected into the subcutaneous tissue little or no irritation follows, and there is consequently no danger of such an abscess as frequently results from the hypodermatic injection of other fluids.

Chemically speaking Aseptolin is a solution containing about three per cent. of absolute phenol and 0.01 per cent. of a new pilocarpin salt (pilocarpin-phenyl-hydroxide), formula C₁₁H₁₆N₂O₂.OH.C₆H₅.

The effect of injecting Aseptolin is to greatly reinforce and increase the natural antiseptic power of the blood.

In some diseases, such as malaria, septicæmia and La Grippe, this effect is so immediate that the disease is often cured as if by magic. In others, such as tuberculosis and phthisis pulmonalis, the effect is often slow and tedious, requiring the most careful attention to adjuvant measures, for the application of sprays, general hygienic care, and scientific nutrient treatment are essential to results.

If the remedy is used with care and skill the practitioner will be rewarded by obtaining a larger percentage of recoveries [55 to 60 per cent.] by any other known treatment. It is not claimed that Aseptolin is a "sure cure" for phthisis or any other disease, but it is claimed that it affords the best known method of treatment for diseases originating from germ infection.

Reports from physicians, who have tested this preparation, will be found in the advertisement in this number.

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universites of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

BROMIDIA, THE HYPNOTIC.—Every fluid drachm contains 15 grains each of pure Chloral Hydrat. and purified Brom. Pot.; and 1-8 grain each of gen. imp. ex. Cannabis Ind. and Hyoscyam.

PAPINE is the Anodyne or pain-relieving principal of Opium, the narcotic and convulsive elements being eliminated. One fluid drachm is equal in Anodyne power to 1-8 grain of Morphine.

IODIA is a combination of Active Principles obtained from the Green Roots of Stillingia, Helonias, Saxifraga, Menispermum and Aromatics. Each fluid drachm also contains five grains Iod-Potas. and three grains Phos-Iron. Made by BATTLE & Co., Chemists' Corporation, St. Louis, Mo.

GESTATION; ACCIDENTS PREVENTED.—The rule of many physicians is to administer Diovinuria in teaspoonful doses, four times a day one week before the time for periods, during the last three months of gestation. Experience has convinced them that Diovinuria not only prevents miscarriage, but also facilitates parturition. To obtain satisfactory results great care should be taken to avoid substitution, by always indicating "Dios" and sending your prescriptions only to such druggists as would not be guilty of this nefarious business.

FEBRILINE, or Lyons' Tasteless Quinine, does not affect the head like quinine sulphate, and is equally as efficacious. Specially adapted for those who dislike capsules, and invaluable for babies and children.

BLOOD POVERTY means a diminution of the number of the fundamental red corpuscles; a reduced percentage of oxygen-carrying haemoglobin, and as a consequence, a diminished resisting power against more serious disease. Pepto Mangan ("Gude") supplies these deficiencies. It furnishes Organic Iron and Manganese to the blood elements, increases the haemoglobin, and restores to the blood its normal germicidal potency. Pepto-Mangan "Gude" literally "builds blood" in cases of Anæmia, Chlorosis, Amenorrhœa, Rickets, Bright's Disease, Etc.

THE MEDICAL EXCURSION NEXT JUNE TO DENVER AND SALT LAKE CITY.—The American Medical Association meets at Denver, June 7th to 10th. One of the features of the gathering will be an excursion from Denver to Salt Lake City and return via the Denver & Rio Grande, Colorado Midland and Rio Grande Western Railways, through the "Heart of the Rockies," furnishing a splendid opportunity to view the most magnificent scenery on the American continent. Salt Lake City is an ideal summer resort, and the bathing at Saltair, in the great Salt Lake—inland salt sea nearly a mile above sea level—is superb in June. There are

more attractions in and about Salt Lake City than any place in the world. Later notice will appear in this publication, giving rates for this excursion and all details. In the meantime send to F. A. Wadleigh, G. P. A., Rio Grande Western Ry., Salt Lake City, for copy of pamphlets on Salt Lake City and the Rocky Mountains.

THE MONTHLY CYCLOPÆDIA OF PRACTICAL MEDICINE is the title under which our valued contemporary "*The Annual of the Universal Medical Sciences*," edited by Dr. Chas. E. de M. Sajous will be hereafter issued. It comes to us greatly improved, and the editorial article on the "Treatment of Cancer," is especially valuable.

POLK'S MEDICAL AND SURGICAL REGISTER OF THE UNITED STATES AND CANADA is now undergoing its fifth revision. Physicians who have not given their names to the canvassers are urged to report to headquarters at once, giving full information. Address R. L. Polk & Co., Detroit, Mich.

AMERICAN MEDICAL ASSOCIATION.—The annual meeting in Denver, next June, promises to be one of the most notable events in the history of the association. A delightful trip in pleasant company may be assured if you join the "Chumuck" party, via the favorite Missouri Pacific Railway. Direct route and quickest time, special train service and low rates. Watch for announcements in subsequent issues of this journal and see the full page advertisement in this number.

NEURECTOMY FOR TIC-DOULOUREUX.—Bernays' "Report of a Surgical Clinic," complimentary to the members of the Mississippi Valley Medical Association, contains the following, in reference to his patient's condition and treatment before neurectomy for tic-doulereux was decided upon:

"Case V.—The patient, æt. 50, white, female. Family history: Has one sister who suffered from emotional insanity; otherwise the family history is good. Previous health excellent. The present trouble began with a severe neuralgic toothache, localized in the right lower molars. Paroxysms of pain were of daily occurrence, and most severe in the mornings about breakfast time. The pain subsided temporarily whenever the teeth were pressed firmly together or upon any substance held between them, but only to return when the pressure was withdrawn. The presence of anything cold in the mouth immediately produced the most exquisite pain; moderate heat produced a soothing effect. After two months, the pain became continuous, and four molars were extracted

without in any way relieving it. On the contrary, the pain increased in severity until October, when it ceased entirely for a period of two weeks, and then returned as severely as before. Another tooth was sacrificed, but without relief; the pain became continuous until last June when it again subsided for a period of six weeks. A recurrence then took place together with an involvement of the parts supplied by the second branch of the fifth nerve. Pain has been constant until the operation. She had strenuously avoided the use of narcotics, but during the more active periods of pain, antikamnia in ten grain doses was found to be an efficacious obtunder. After describing the neurectomy, Prof. Bernays says: "Eight weeks have now elapsed since the operation, and no recurrence of the trouble has taken place."

RHEUMATISM.—There are many cases of rheumatism in its various forms, which otherwise prove most obstinate and unyielding, but which can be cured speedily and thoroughly by the use of Tongaline Liquid or Tongaline Tablets or Tongaline and Lithia Tablets or Tongaline and Quinine Tablets, as the conditions may indicate, all to be taken at short intervals and washed down with plenty of hot water, as hot as the patient can bear it.

This treatment can be supplemented by the local application of Tongaline Liquid; or the disturbing effects of internal medication upon an irritable stomach and sensitive nerves can be avoided by the external use of Tongaline Liquid alone.

The affected parts should be sponged first with alcohol, then with Tongaline Liquid, and cloths saturated with the remedy held in apposition by oiled silk bandages, applying heat by a hot water bag or other convenient method to facilitate absorption. Tongaline Liquid, in like manner, may be given externally by the aid of electricity.

OF TIMELY INTEREST.—Medical authorities are now giving great attention to stomachic conditions in throat and chest diseases and catarrhal affections.

Malnutrition and stomach derangements are largely responsible for the obstinate coughs and bronchial disorders of winter. The depression and debility so common to these cases is quickly dissipated by "Gray's Glycerine Tonic Comp."

It soothes irritated tissues, controls coughs and relieves dyspnoea. There are no depressing after-effects or congestion. The stomach receives reliable and positive aid. In chronic ailments it is of special value.

A PERFECT CO-ADJUVANT.—Physicians should not forget that no matter what their preference may be as to the form in which milk should

be used for their patients and the babies under their care, whether it is modified, sterilized, pasteurized, peptonized, treated by some other method, or natural, they can always depend on the perfect co-adjuvancy of that unrivalled dietetic preparation, Imperial Granum. Many years of successful clinical experience having proved this combination of nutriments to be acceptable to the palate and also to the most delicate stomach at all periods of life, being in many cases retained and assimilated when everything else is rejected, though in very extreme cases the Imperial Granum is often prepared with pure water only.

SANMETTO IN CYSTITIS AND PROSTATIC TROUBLES.—Sanmetto yields uniformly good results at my hands. I have prescribed it in chronic cystitis of long standing, where the standard remedies failed, and effected a permanent cure. It is certainly ahead of anything I have ever used for enlarged prostate, and, in fact, for all prostatic troubles.

J. F. LAMBERT, M.D.,

Barley, Iowa.

CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the value of which Physicians seem to have lost sight of to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement we refer our readers, have placed upon the market a much improved form of this compound, "ROBINSON'S PHOSPHORIC ELIXIR." Its superiority consists in its uniform composition and high degree of palatability.

KYOFIN, a new coal-tar product, is an effective analgesic and anti-pyretic in small doses, and is safe. It has shown itself efficacious in the fever of consumptives, in streptococcus diphtheria, tubercular meningitis and ulcerative endocarditis. It has often proven a good anti-neuralgic, and in recent sciatica its rapid effect has been extremely satisfactory.

MELLIN'S FOOD.—G. W. Wigner, F. S. C., F. C. S., President of the Society of Public Analysts, of London, England, says of this most valuable preparation for the modification of fresh cow's milk, that "it is not only readily digestible itself, but it actually assists to digest milk or other foods with which it is mixed."

LISTERINE is taken as the standard of antiseptic preparations. The highest claim made for other manufacturers of antiseptics is that "It is something like Listerine."

WAYNE'S ELIXIR.—When prescribing for your cases of genito-urinary disorders do not get this valuable combination confused with ordinary mixtures of Buchu, Juniper, Potas. Acetas, etc., because it is not only different in its special combination and preparation, but you will find it far different in its action and effects; therefore, always specify Wayne's Elixir, and advise that none but reliable and honest druggists, who will not give you a worthless substitute, be applied to. Write to Wayne Elixir Co., 234 E. 5th St., Cincinnati, for pamphlet and literature.

ANTI-DIPHTHERITIC SERUM is put up and sold only by Messrs. Parke, Davis & Co., in hermetically sealed bulbs, the only perfect package, and not in ordinary vials with corks. Each cubic centimeter of this Serum represents 500 to 750 antitoxic units. It is the most concentrated antitoxine that has ever been produced, and is the most reliable. In a recent personal conversation, Dr. I. C. McSwain, of Paris, Tenn., Secretary of the West Tennessee Medical Association, and Vice-President of the Tennessee State Medical Society, speaks most highly of his success with Parke, Davis & Co.'s bulbs of Antitoxine.

SANDER & SONS' EUCALYPTOL EXTRACT (Eucalyptol).—Apply to Dr. Sander, Belle Plains, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, sole agents.

Reviews and Book Notices.

DISEASES OF THE STOMACH, Their Special Pathology, Diagnosis and Treatment, with Sections on Anatomy, Physiology, Analysis of Stomach Contents, Dietetics, Surgery of the Stomach, etc., in three parts. By JOHN C. HEMMETER, M.B., M.D., Philos.D.; Clinical Professor of Medicine at the Baltimore Medical College; Consultant to the Maryland General Hospital, etc. 8 vo., cloth, pp. 788, with many original illustrations, a number of which are in colors, and a lithograph frontispiece. Price, \$6.00. P. BLAKISTON, Son & Co., Publishers, 1012 Walnut St., Philadelphia. 1897.

Preceding the subject matter of this very full and complete work the author has given place to the timely old fable of *Aesop* of the revolt of members of the Body against the Belly, and

although the very latest developments in the very progressive surgery of the Nineteenth Century cites an instance of complete resection of the stomach, that is so far successful that the patient was still living at some three months afterwards, the stomach will always be regarded as a very important viscus, on which depends to a great extent a comfortable and enjoyable conjunction of the Soul and Body. All civilized peoples, and Americans more so than any have less, far less regard for the "prima viæ" of the ancients than its importance demands, and the sins of both omission and commission in connection with its well-being and perfect functional activity are both numerous and frequent; consequently, the great wonder is, that its diseases and disorders do not more frequently adopt the role of a Nemesis in order to bring us to reason and a more healthful and correct mode of living.

American clinicians have done some very important work along the lines of pathology and therapeutics referring especially to the stomach, and Dr. Hemmeter has most fully and elaborately treated the subject, both systematically and as concisely as clearness of expression and facility of understanding would admit; giving first the special anatomy and physiology of the digestive organs, methods of diagnosis and general therapy, including dietetics, following this by a methodical discussion of the various diseases of the stomach, with their symptomatology, diagnosis, pathology and treatment. The illustrations, many from original drawings, have been selected because of their practical bearing upon the matter under consideration.

The general practitioner will find in this excellent volume clear and practical statements from which he can readily acquaint himself with all that has been done in this important special field of medicine, to fit himself to make examinations, take advantage of new methods of diagnosis, and to treat this very difficult class of diseases rationally and successfully.

The author has availed himself fully of the valuable work that has been done by the most eminent and accepted authorities in the lines of general practice, surgery, anatomy, physiology, pathology and chemistry in connection with the stomach, and the publishers have given his elaborate, practical and correct views the aid deserved, so far as paper, presswork, large, clear and readable type, together with excently executed illustrations.

Part I. is devoted to the Anatomy and Physiology of the Digestive Organs, and Methods and Techniques of Diagnosis.

Part II. Therapy and Materia Medica of Stomach Diseases.

Part III. The Gastric Clinic. A most admirable arrangement, and the most satisfactory work on Gastric Diseases yet produced.

MANUAL OF GYNECOLOGY. By HENRY T. BYFORD, M.D., Professor of Gynaecology and Clinical Gynaecology in the College of Physicians and Surgeons of Chicago, etc. Second edition, containing 341 illustrations, many of which are original. Philadelphia: P. BLAKISTON, SON & CO., 1897. Price, \$3.00.

The demand for a second edition in two short years is conclusive evidence of the appreciation by the profession of this excellent work of one of Chicago's noted gynecologists. In this edition a large amount of new matter has been added, together with quite a number of new illustrations. The general arrangement of the original has been followed, but a separate "Part" has been given to carcinoma, sarcomas and cystic tumors. A new part, on the anatomy of the pelvic organs, and new chapters on venereal diseases materially increase the value of the work. Angioma, hypertrophy and atrophy of the uterus have been rewritten, and the chapters on urinary and fecal fistulae have been almost entirely recast. The use of the cystoscope, ureteral instruments, and many other matters of minor detail have been incorporated.

A system of marginal notes will be of great service in quick reference, and will serve as a guide to the student.

The chapter on Gynecological Technique is thoroughly in accord with practical developments of aseptic and antiseptic detail, and that on after-treatment of operations is a safe and reliable guide. The methods of examination and the manipulation of instruments is briefly but lucidly detailed. The chapters on individual diseases are practical and instructive, and the directions regarding treatment are to the point and the description of operative procedures are plain.

HUGH WYNNE, FREE QUAKER. Sometimes Brevet Lieutenant-Colonel on the Staff of his Excellency General Washington. By S. WEIR MITCHELL, M.D., LL.D., Harvard and Edinburgh, in two volumes. The Century Co., New York. 1897.

This most entertaining volume of fiction, embodying histori-

cal details with the faithfulness and accuracy of Scott or Cooper, is of no little interest to medical readers, from the fact that it is written by a Past Master in the profession, who has depicted one form of disease in that department which he has so ably and satisfactorily made his mark. The gradual mental decay of the father of the hero is a graphic delineation indeed of the disintegrating effects of "the tooth of time" on a once strong and vigorous intellect.

The thrilling details of the plot are laid in the times just preceding and during the culmination and progress of the American Revolution, the scenes being principally in the vicinity of Philadelphia. The trying times at Valley Forge, the sad and fearful ending of Major Andre, the downfall of Arnold, and rather a new phase of General Washington's character, with other historical data of those stirring times are depicted with the hand of a master in graceful and entertaining language. The events immediately preceding the revolution, the scenes of revelry and enjoyment in the immediate vicinage of, and in the "midst of war's dread alarms" are very like indeed to similar incidents that occurred in the knowledge of some of our older readers, who either wore the "blue or the gray." Get the work, Doctor, it will not only entertain you, but will rest your mind from too much poring over technical works, and its handsome binding in sober quaker drab, with its coat of arms of the Penn family, and its excellent printing, will make a valuable addition to any library; and, furthermore, it is a book that your children, and their children, of either sex may safely read, with entertainment and instruction both pleasing and beneficial.

If Dr. Mitchell had never written a line outside of this book, it alone would have placed him high in the ranks of the best book-makers of the age.

RUBAIYAT OF DOC SIFERS, 8 vo. cloth, pp. 111. BY JAMES WHITCOMB RILEY. Illustrated by C. M. REILYEA. THE CENTURY PUBLISHING Co., New York. 1897.

This beautiful "quatrains" in the "Hoosier Poet's" illimitable verse should have a conspicuous place in every physician's library, city, town or country. Riley in his well-known and quaint, but enjoyable style, tells of the unselfish, self-sacrificing,

yet influential life of the village doctor, wearing himself out, both brawn and brain, in his care and service of others. It is a sincere tribute to the wholesome, earnest and faithful labors of the true family physician in behalf of his fellow-man. In sunshine and in storm, in rain and mellow evening's glow, at the fire-side, the bedside, or on the battle-field, with those in pleasure or in pain, in joy or in sorrow,

"He's jes a child, 's what Sifers is! And—sir, I'd rather see
That happy, childish face 'o his, and puore simplicity,
Than any shape er style er plan o' mortals otherwise—
With perfect faith in God and man a shinin' in his eyes."

TAMAM.

THE TWENTIETH CENTURY PRACTICE, an International Encyclopedia of Modern Medical Science by leading authorities of Europe and America. Edited by THOS. L. STEDMAN, M.D., New York City. In 20 volumes. Vol. XIII.—Infectious Diseases. 8 vo., cloth, pp. 621. Wm. Wood & Co., Publishers, New York, N. Y.: 1898.

As a continuation of Infectious Diseases, Vol. XIII. of this grand and valuable exposé of Medical Science of to-day we have the following subjects:

Ptomaines, Toxins and Leucomains, most ably considered by Victor C. Vaughan, of Ann Arbor, Mich.; Infection and Immunity, by Harold C. Ernst, of Boston, Mass.; Waterborne Diseases, by Ernest Hart and Solomon C. Smith, both of London; Duration of the Periods of Incubation and Infectiousness in Acute Specific Diseases, by Duncan Williams, of London; Smallpox, by John William Moore, of Dublin; Vaccina, by P. Bruardel, of Paris, and Mumps, by Jules Comby, of Paris. A full and complete index of the valuable contents concluding the volume.

These are all most important subjects, along whose lines there has been so much recent progress, that as compared with standard works of but a few years ago, they all constitute, in the main, new matter, well collaborated and detailed by master minds in the medical profession actively engaged in the latter part of this century. This mere detail of the subject matter contained in this volume we regard as of more value to this grand work than the highest commendation at our hands.

HANDBOOK OF MATERIA MEDICA, PHARMACY, AND THERAPEUTICS, including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Practical Pharmacy, and Minute Directions for Prescription Writing. By SAMUEL O. L. POTTER, A.M., M.D., M.R.C.P., Lond., Professor of the Principles and Practice of Medicine and Clinical Medicine in the College of Physicians and Surgeons of San Francisco, etc. Sixth edition, fully revised and greatly enlarged, 8 vo. cloth, pp. 900. Philadelphia: P. BLAKISTON, SON & CO. 1897. [Price, \$4.50.]

Hardly ten years has elapsed since we were delighted with the first edition of this most excellent work, and each succeeding edition up to the present (6th), before us has only increased our esteem of what we candidly and conscientiously regard as the very best work on the subject. The present edition differs only from its predecessors in being better, more full, and most thoroughly in accord with the latest developments in therapeutic progress. All that recent therapeutic research and investigation have demonstrated as worthy of being included in such a publication are fully considered, yet the serum treatment of disease, the synthetic compounds, and other recent developments receive full attention, and less conspicuous subjects are by no means neglected. The excellent sections on incompatibility and pharmacy, the well considered subject of therapeutics, and the very useful appendices, especially the one giving full information in regard to the formulæ of patented preparations, we have from the first edition considered a no small feature of the book. The excellent system, the thoroughness and completeness, without making the volume too massive and cumbersome, make it all in all a most satisfactory work for the student and practitioner.

SAW PALMETTO: Its History, Botany, Chemistry, Pharmacology, etc., and Therapeutic Applications, by EDWIN M. HALE, M.D., Author of "New Remedies," "Practice of Medicine," etc., etc., 8 vo. cloth, pp. 96, price 50 cents, by mail 55 cents. BOERICKE & TAFEL, Publishers, Philadelphia. 1898.

This is a very interesting little monograph, giving full and definite information as to this member of the great family of palms, which has been attracting considerable interest by reason of its uses in vesical and genito-urinary disorders.

PHILLIPS' EMULSION

exhibits the highest degree of excellence in emulsionizing Cod Liver Oil. 40 per cent. finest Norway Oil—in minute sub-division—emulsified by Pancreatine—combined with the Wheat Phosphates (PHILLIPS'). Acid reaction, precluding saponification.

PALATABLE—PERMANENT.

Miscible in Water, Milk, Wine, etc.

Prescribe PHILLIPS'.

THE CHAS. H. PHILLIPS CHEMICAL CO., 77 PINE ST., NEW YORK.

THE SOUTHERN PRACTITIONER.

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DEERING J. ROBERTS, M.D., - - - *Editor and Proprietor.*

Vol. XX.

NASHVILLE, APRIL, 1898.

No. 4.

Original Communications.

IMMUNITY, NATURAL AND ACQUIRED.*

BY ERNEST B. SANGREE, A.M., M.D.,

Professor of Pathology and Bacteriology in the Medical Department of
Vanderbilt University, Nashville, Tenn.

No question of greater general interest and importance in the study of biology has ever opened up than that of immunity, both natural and acquired. Ever since the causal connection between the minute vegetable organisms known as bacteria and certain morbid processes has been known, investigators have also been aware that animals manifested remarkable differences with respect to their susceptibility to invasion by these organisms. Some, for instance, are unaffected by the injection into the cir-

* Read before the Nashville Academy of Medicine, Feb. 17, 1898,
and published by unanimous request of the Academy.

culation of large quantities of an organism of which the most minute amount will speedily bring about the death of an animal of a different class or species. Certain diseases which we now know to be of microbic origin, affect only one class of animals; another may affect several different classes or species; another, many kinds of animals and not man; while still others may affect both certain animals and man; and finally there are some organisms that seem to find only in man soil suitable for growth, and in him alone therefore cause disease. These facts have been brought out in the course of multitudes of experiments with animals undertaken to discover the cause and if possible the cure for diseases that have baffled all skill of physicians and have ravaged mankind from immemorial. The worst of these diseases, tuberculosis, affects, for instance, not only man but cattle, apes and small herbivorous animals such as the rabbit and the guinea pig, while carnivora are as a rule immune. Anthrax is common among, and very deadly to, cattle and sheep, is easily communicated to rabbits and guinea pigs, is communicated with some difficulty to man and in his case not commonly fatal, whereas it is almost impossible to affect rats, carnivorous animals and birds with this germ. The horse is especially susceptible to glanders, which may with comparative difficulty be transferred to man, more easily to the guinea pig and to field mice, but house mice, rabbits, cattle and swine are almost entirely immune. The bacillus of hog cholera attacks swine alone, whilst horses and cattle are unaffected by it. Typhoid fever, cholera, relapsing fever, leprosy and some others are specifically diseases of man, and animals are in a great measure unaffected by the organisms which in the case of man produce such profound and deadly results. A host of similar facts has been collected by observers all over the world, and there could not fail to be inspired in these men questions as to the reason for such peculiar manifestations. Considering the matter a priori and remembering that bacteria belongs to the vegetable kingdom, it does not seem strange that they should manifest differences in their predilections for habitat.

The ordinary vegetation with which we are acquainted, flowers, fruits, grasses, grain and vegetables have long been known to require certain constituents from the soil as a *sine qua*

non for growing. These demands on the part of vegetation have been studied by the chemist, and the intelligent agriculturist makes use of this knowledge in the cultivation of his farm, supplying to the exhausted ground the elements which have been found to be most needed by certain cereals, grasses, or fruits. Other conditions, however, still unknown affect the growth of vegetation. Some flowers and fruits are peculiar to localities in which nothing in soil or air or latitude is found as an explanation. There is, of course, a cause, yet so far it has eluded investigation. In the cultivation also of bacteria in the laboratory it has been found that slight variations in the composition of a nutrient medium either make it a suitable soil for growth or render it unfit for their development, whilst in the case of certain bacteria no combination yet made has met the indications given by the tissues, and it has not been possible to cultivate them outside of the human body. Most bacteria, for instance, require a slightly alkaline medium in which to develop, but if the alkalinity is more marked they refuse to grow, and, on the contrary, the least trace of acidity prevents their development. Knowing this, and at the same time that the chemical composition of the tissue and fluids of different animals is not often the same, it does not seem surprising that the bacteria should manifest many differences in their preference for hosts; yet, when we come to consider an organism like the bacillus of glanders, which is very fatal to field mice, yet does not affect house mice, or anthrax, which is particularly deadly to all sheep, with the single exception of the Algerian species, we are confronted by the fact that in some cases, at least, the essential differences in the character of the soil must be indeed very slight, and the difficulty of demonstrating them correspondingly great. Illustrations of immunity against poisons of another class are furnished by the venomous serpents. There are manufactured by certain glands in these reptiles albuminous substances which, while perfectly harmless to the snake's own economy and of so subtle a composition as to elude any satisfactory chemical analysis, are yet speedily fatal in almost incredibly small amounts to man and other animals generally. Nor is that part of the vegetable kingdom to which bacteria belong alone in producing toxic products. Our *materia medica* is replete with poi-

sons extracted from the various vegetation about us. The sting of a nettle poisons the skin. The touch of the poison ivy sets up a severe dermatitis. The juice of the jequirity bean produces a violent and dangerous ophthalmia. The active principles of the opium plant, the aconite root, of *nux vomica*, woorara and the wild cherry give us our most deadly poisons. Yet, here again are found peculiarities of individuals, of species and of class. Many a person has died of an ordinary medicinal dose of one of the common poisons used as remedies in medicine. Others are poisonously affected by the most trivial amounts of certain of these, such as opium, belladonna, ipecacuanha and the like. Some animals, again, eat with impunity plants which to man and other animals are poisonous in the highest degree.

In the course of investigations made to discover if possible what was the cause of this immunity against the attacks of certain bacteria possessed by different animals, it was found that blood removed from the body and inoculated with bacteria soon swarmed with these micro organisms and became putrid, whereas if the same bacteria were injected into the circulation, they not only failed to multiply but soon disappeared from the blood. Furthermore, several observers, notably among whom was Metchnikoff, discovered in many cases that these same organisms could be demonstrated in the bodies of the white blood corpuscles. It was found also that organisms, like the anthrax, when injected into the circulation of the naturally immune rat, were found within a few hours contained in the bodies of the amœboid leucocytes, showing in many of the germs signs of disintegration, such as nodular swellings and irregularities in staining. At the point of inoculation were found large numbers of leucocytes, the condition being similar to that occurring at an inflammatory focus; and it looked from this as if the bacilli had attracted by their presence the leucocytes—chemiotaxis. From these and many similar facts arose the theory of phagocytosis. This was to the effect that the white blood corpuscles acted as defenders of the body, gathering in quantities at any point threatened by forces inimical to the welfare of the tissues, attacking the bacteria, enveloping them by means of the amœboid movement with cellular protoplasm, and finally digesting the invaders. The condition figured was that of an invading

and an opposing army. If the leucocytes were in the majority or were possessed of superior strength, as many of them were found containing a number of bacteria, then the invading army of germs was swallowed and destroyed. Were the latter, however, much more numerous, or were the leucocytes naturally weaker, as in susceptible animals, or temporarily so, then the leucocytes in turn were killed and broken up into lower chemical compounds on which the bacteria lived until they had multiplied to an extent inconsistent with further life on the part of their host, whereupon general or somatic death ensued. This theory, while pictorially beautiful, was soon found by other experimenters, not to explain all the phenomena observed. Blood, ascitic and pleural fluid were deprived of their corpuscular elements, yet these fluids inoculated with bacteria and kept at body temperature in the incubator, were found to be capable of killing a certain number of bacteria. Moreover, in some infectious diseases, leucocytes are found which contain so many healthy looking and properly staining bacteria, that there seems no other conclusion than that in these diseases the micro-organisms choose the leucocytes as their especial habitat for multiplication. This seems the more probable when we notice that while so many leucocytes will contain more or less bacteria, other white cells of the same class will have none. A reaction, therefore occurred, and the serum theory was advanced as the cause of natural immunity, pre-eminently blood serum and probably also serum from different cellular structures of the body. The projectors of this theory maintained that although it was true the leucocytes frequently contained bacteria, these organisms were taken up only after they had been killed by the serum, and that consequently the leucocytes acted simply as scavengers or graveyards. As in the case of many similar conditions in which there are two opposing theories, the general tendency of belief now is to explain immunity by a combination of the two. In attempting to discover what particular elements of the blood or of the corpuscles it was that proved so inimical to the development of micro-organisms, a number of recent investigators have found that it belongs to the nucleins and is probably nucleinic acid. Now nuclein is the essential component of the color-taking element of the white blood corpuscles and of certain

other cells. Experiments made with the cells in solution showed that the former substances were much more bactericidal than the latter. It is then generally agreed that natural immunity depends on certain complex albuminoid bodies, chief of which is nuclein, and that these have the power in some cases not only to inhibit the development of bacteria, but to resolve their poisonous products known as toxins into innocuous ones, and finally to kill and disintegrate the bacteria themselves. This being the case, the great increase of white blood corpuscles noted in most infectious diseases becomes an element of benefit to the patient. Before the relationship of these corpuscles and their nuclein to the development of bacteria was understood, the condition known as leucocytosis or increase of white blood corpuscles was looked upon as being a part of the disease, and therefore as a factor of danger. Now, however, their presence is considered a strong agent in aiding the patient in his return to health, and as an evidence that nature is making an effort to eradicate the disease by multiplying the elements known to be inimical to its progress.

After the subject of natural immunity had grown to be thoroughly well understood, it followed that thoughtful workers in these lines should see some possible connection between this and a similar condition to be produced at will in animals not naturally immune; in other words, to accomplish immunity where nature had not given it. They had as an exemplar the brilliant and so far unique illustration of immunity from small-pox acquired through vaccination. It was discovered by the genius of Jenner long before the days of bacteriology that inoculation with vaccinia or cow-pox would ensure against an infection from the deadly small-pox. Through this beautiful application of the principles of immunity the decimation of mankind from this disease that had existed as far back as history goes was stopped. Though no specific causal organism has as yet been discovered for small-pox, yet the disease acts so similar to those diseases which we know to be of such origin there can be little doubt that small-pox, too, is due to the inroads of some thus far undemonstrated micro-organism. Vaccinia or cow-pox, which is given by the preventive inoculation, is in all probability a mild form of small-pox, and the virus consists either of attenuated small-

pox bacteria, or of a specific toxin, or of both; the action probably being to generate in the system an antitoxin which renders the body unfit for the growth and development of a succeeding inoculation with the virus of true small-pox. For some time after the etiologic connection between bacteria and certain specific diseases had been known, attempts were made to kill the organisms by means of drugs and the like, and thus to cure the disease. Bacteria, however, are, as a rule, so much more resistant to inimical influences than is ordinary animal protoplasm that such attempts were soon abandoned. Some can resist boiling for a considerable length of time, others baking at a high temperature, others freezing, and still others, amounts of poisons that would speedily be fatal to animal cell life. But as these studies in natural immunity progressed the fact developed that given the proper conditions there were formed in the animal substances which, though in themselves harmless to the individual, were deadly to the pathogenic bacteria, and attempts were made towards securing at will some such conditions in man and other susceptible animals. It had long been known, of course, that some diseases give a more or less perfect immunity against a recurrence of the same malady. One attack of small-pox, typhoid fever, measles, scarlet fever, mumps and a few others, is usually all that one gets in a life time. If it were possible to discover the cause for this, and then to duplicate that cause, individuals who have never had these diseases could be rendered similarly immune. The first question was as to what gave rise to the immunity. One school of investigators believed that the generation of the infective organisms used up in that body the substances that had served as nutriment for the germ, and that thereafter this person was immune simply because there was nothing left for the micro-organism to live on. Others, on the contrary, believed that the bacteria developed by their growth some substance which was inimical to further multiplication, and that this substance remaining in the system prevented additional attacks. Others, again, thought that certain cellular structures or glands of the body were affected in some manner by the presence of the bacteria so that they were afterwards able to prevent successive attacks by killing the invaders. The matter is not yet definitely settled, though the first theory has been com-

pletely abandoned. The explanation probably lies in a union of the latter two theories; for it is found that bacteria develop by their growth not only a toxin which is poisonous to animal protoplasm generally, but at the same time manufacture an anti-toxin which is capable under favorable circumstances of both neutralizing the toxin and of exhibiting further multiplication of the bacteria. The explanation of self-limited diseases, such as typhoid fever, pneumonia, diphtheria and the like, is to be found in this fact. The substances generated by the bacteria in their development finally make the soil unsuitable for their further growth. We find the same results to occur in artificial cultivations.

Pasteur, the pioneer in this line, in the course of his investigations into the cause and prevention of chicken cholera was the first to note that immunity could be given to otherwise susceptible animals. He discovered that if the bacillus of chicken cholera was kept for two months on the same culture medium, it lost some of its toxicity, and that if a chicken were now inoculated with the ordinarily deadly amount, the fowl did not die, but simply became sick and then recovered. He found also that this chicken was now unaffected by subsequent much larger doses of virulent bacilli. He was quick to see the practical utility and possible outcome of such a phenomenon, and both he and many other investigators worked in this direction until at the present time we have voluminous data bearing on this interesting subject. It was discovered that various bacteria could be attenuated, as it was called, in other ways, such as, by subjecting them to sunlight for a time; others again are attenuated by the addition of various chemical substances; and still others had their toxicity lessened when injected into a susceptible animal in company with the different and harmless micro-organisms. Such vaccinations, as they are called, were employed on animals in the case of anthrax and chicken cholera with excellent results, but naturally the inoculation of human beings with living bacteria would prove an unpopular and more or less uncertain performance. Later it was discovered that the injection of the dead bacilli would bring about the same result, and still later that it was not necessary to make use of the bacilli at all; the toxins elaborated by them would do as well. The

organisms were cultivated for some weeks in bouillon at body temperature, the medium then passed through a filter that removed the bacteria from it, and the filtrate more or less concentrated by evaporation and with some preservative added, was used for inoculation. It was at this period that Koch announced the discovery of tuberculin, which was prepared in the manner just detailed. This product was found to exert such marked reaction in the bodies of tuberculous animals and people that it was for a time believed the reaction would result in making the tissues untenable for the bacillus tuberculosis. Further experimentation showed, however, that, while this substance assisted in breaking down tissues devitalized by the bacillus, it exerted no deleterious influence on the micro organism itself, and by breaking down nodules in which were imbedded bacilli, freed them and allowed them to attack fresh and heretofore unaffected tissues. Its use was therefore generally abandoned.

All these discoveries, however, paved the way for another decisive and advanced step. As has been previously remarked, along with the manufacture of a toxin, pathogenic bacteria at the same time cause the development of an antitoxin. It was found that if the serum from the blood of an animal rendered immune by the injection of the toxin of some organism to which it was susceptible, was injected into a second susceptible animal, the latter was also immunized. Whilst the serum was of itself quite innocuous, it resolved the deadly toxins into harmless substances. It may readily be seen that by this discovery experimenters were now on the track of something which seemed likely to prove an ideal method of combatting the attacks of bacterial diseases. It remained for Behring to make this discovery practicable for man. In experimenting with the toxin of diphtheria, he found that what has been stated generally was true for the organism of this disease. Rabbits, guinea pigs and other animals susceptible to the poison of this bacillus were rendered immune by gradually increasing doses of the toxin, until they showed no constitutional manifestations after the injection of many times the ordinarily fatal dose. The serum taken from their blood was then found to give similar immunity to other animals, and accurate relationships were worked out between the amount of serum needed to immunize an animal of

given weight against the injection of a given amount of the diphtheria toxin. Finally, children affected with diphtheria were injected with the antitoxic serum and were found to react similar to the animals experimented upon.

Diphtheria is a particularly good disease for such treatment. The bacillus does not disseminate itself throughout the body, but remains at the spot of infection, generally the throat. At this point its toxins are absorbed by the mucous membranes into the blood and the nervous centers paralyzed. The antitoxin injected under the skin enters the blood promptly by absorption and, in some way not understood, dissolves, breaks up and renders innocuous this fatal bacillary product. In order to make the substance a commercial possibility, a susceptible animal large enough from which a goodly amount of blood could be drawn without detriment to the animal had to be secured. The horse was found to answer all indications, and therefore the antitoxin was gotten from this animal in a manner precisely similar to that in which it was first secured from rabbits and guinea pigs, though in vastly greater amounts.

It would seem that the same methods should bring about similar results with regard to the other disease-producing bacteria, but unfortunately so far small success has crowned the efforts that have been made. In tuberculosis, for instance, the most prominent of all infectious diseases, the conditions are very different. Diphtheria is an acute disease of a few days duration; tuberculosis is a chronic disease of months' and years' duration. A few hours will show in diphtheria whether the patient is growing better or worse; weeks and months may elapse in tuberculosis without appreciable change. Diphtheria is a local disease, the bacilli remain on the outside of the body and nothing but their products are absorbed; in tuberculosis one or more organs or the entire body is penetrated by the bacillus, which lies deep in the tissues, totally unapproachable. The diphtheria bacillus grows lustily on a proper medium in twenty-four hours to a mass that would hardly be equalled by the bacillus tuberculosis in three months. These peculiarities make tuberculosis a singularly difficult disease either to experiment with or to treat, yet investigators do not by any means doubt of ultimate success in elaborating by means of the bacillus itself some substance which when injected into the human organism will render

the tissues suitable soil for the growth and development of this germ.

Tetanus, or lockjaw, which is a disease somewhat similar to diphtheria, in that it consists of a purely local infection of the tetanus bacilli with the consequent toxic condition, has had elaborated for it a similar serum. The conditions accompanying experiments with this bacillus, however, are considerably more difficult than those connected with the diphtheria bacillus and the results so far have been only fair. Similar antitoxins have been made for typhoid fever, for pneumonia, for glanders, and for the septicæmia due to poisoning by the streptococcus pyogenes; and though more or less favorable results have been published in connection with each, the whole matter is as yet too much in its infancy to make didactic assertions one way or the other. From the brilliant results obtained from the diphtheria antitoxin, however, it seems positive that we are now working in a correct, legitimate and reasonable manner towards the solution of the great mystery that has heretofore surrounded these scourges of mankind, and towards the discovery of the agents that are successfully to combat their future attacks.

THE TREATMENT OF HEADACHE—A PRACTICAL METHOD OF INCREASING THE DOSE OF POTASSIUM IODIDE.*

BY DR. A. V. MEIGS, AT THE PENNSYLVANIA HOSPITAL.

The following case, which is that of an Italian woman, 26 years of age, recently admitted to the hospital, is very instructive in showing one source of obscure headache, which should not be overlooked in any class of patients. Let us study her case and see how absolutely valueless her symptoms are in aiding us to a diagnosis. Her family history is negative; her personal history, as far as we can determine it, is equally uncertain. She has three children living and well, and two dead.

For a month previous to her admission to the hospital, she

* Specially reported for the SOUTHERN PRACTITIONER.

suffered severe pain in her limbs and in her head. On admission, she complained of agonizing pain in the right side of her head. She could not sleep at night; she suffered from vertigo, and she was unable to use the right eye. The pains in the limbs had disappeared and the trouble localized in the head. When I saw her first she was seated in a chair, with her head in her hands—the picture of woe and suffering. Her temperature showed that there was no fever; only once has it reached 99°, and since then it has displayed a tendency to become subnormal. In these cases I do not believe that the temperature causes any disturbance; on the contrary, I think that the depression of mind or body may in itself cause such slight changes of temperature as we find in this case.

An examination of her lungs, heart, kidneys, and other viscera, showed that they were all normal, with the exception of the right eye. Dr. Harlan, who is the ophthalmologist for the hospital, found in this eye the remains of an old choroiditis, opacity of the vitreous, and the sight is about destroyed. The left eye is normal in condition. In the experience of Dr. Harlan, this condition is very frequently caused by specific trouble, and he suggested that I put the patient on a mixed treatment of iodide of potassium and mercury, but I prefer to try first in these cases ascending doses of iodide of potassium, which I increase in the following manner, which results in the patient getting five grains more of the drug each day:

On the first day I give the drug as follows, three times after eating, and well diluted: Grains 5 5.5—15.

On the second day I increase as follows: Grains 10 5 5—20.

On the third day: Grains 10 10 5—25.

On the fourth day: Grains 10·10·10—30.

On the fifth day: Grains 15·10·10—35.

On the sixth day: Grains 15·15·10—40.

On the seventh day: Grains 15·15·15—45.

At the present time she is taking sixty-five grains of iodide of potassium a day, in the following proportion: Grains 25-20-20—65.

Shortly after commencing this treatment the pain in head began to disappear and her general appearance improved. And right here I wish to call attention to a certain peculiarity found

in this class of patients. It is that they are unwilling to acknowledge they are better. If their condition has improved to such an extent that it is impossible to disguise the fact, they will then complain of some trifling annoyance as incident. That pleasant sense of satisfaction which is so encouraging to a physician, which comes from the honest acknowledgment of a patient that he or she is better, is generally lacking here. I do not think that this is done by the patients with intent to deceive, but they are ignorant, and then possibly they reason that if they seem to get well too quickly they will be discharged from the hospital. Again, I know that it is common for patients to deceive themselves honestly; for example: I have had patients tell me that they have been awake all night, whereas I have determined by actual count that they had been awake possibly two to four hours in the night, and had slept from four to six hours. But the long waking vigil made them feel that it lasted through the entire night.

This woman is taking a large quantity of iodide of potassium without ill-effect; in fact, she is actively improving under its continued administration. The only thing that we notice, traceable to the drug, is that peculiar acne which frequently happens upon its administration. These eruptions are really little furuncles in the follicles of the skin, and are most common in her case upon the face.

We have a case of syphilitic disease in the brain which is now improving, but the serious question is what will be the result. Many observers in cases of this sort state that such trouble is due to syphilitic gummata, but generally in post mortem, in such cases, no gumma is found. Personally, I believe the trouble to be due to change in the blood-vessel walls of the brain, by which the blood supply is cut off. I am not very optimistic as to prognosis in cases of syphilitic brain disease. I do not wish to deny that there are cases in which syphilis is cured, or at least seems to disappear, but I believe that this is rarely the case where the brain is involved. I have one case in my mind particularly, in which for nine years everything possible was done for the patient, but there was gradual mental deterioration which increased until the patient died.

BORIC ACID IN THE TREATMENT OF CONSUMPTION; A CRITICISM OF OXY-TUBERCULINE.

BY G. W. DAYWALT, M.D., OF SAN FRANCISCO, CAL.

For the past fifteen years the medico-scientific world has been searching earnestly and persistently for a method by which the bacilli tuberculosis can be destroyed in the body; or to render the body immune from their influence—a specific for consumption. Within ten years from the discovery of the bacillus about all of the known antiseptics had been used in every manner imaginable, and were found wanting. Koch announced a new idea. The bacillus produced its own poison. No organism can live within its own excrement. From pure cultures of bacilli he obtained the p^lo^mains to introduce into the tuberculous patient, hoping they would act as toxines to the bacilli, or as antitoxines to the patient. The tuberculin had a specific action. It was a new remedy. Perhaps it modified the course of the disease, but was defective as a cure. Further investigation and modification of this method led to other valuable discoveries; especially of the preparation of antitoxines to help the system resist the deadly effect of those bacilli that, unlike the bacilli tuberculosis, soon spend their full force by killing the patient within a few days or, at most, weeks, when, if they do not succeed, give up the battle and depart allowing convalescence. Among the many modifications of tuberculin is "oxy-tuberculin," which is attracting great local attention. It undoubtedly has some merit. It is my object to show wherein this merit lies.

Oxy-tuberculin is a combination of substances. Is it all or only one of its many ingredients that establish its therapeutical value—carefully growing the bacilli on good veal; cooking them for 120 hours with hydrogen peroxide, which generally contained free acid, washing with caustic soda, finally introducing boric acid—is all this necessary, or is it simply the unnecessary incantation over the preparation of a remedy as in medieval times? Its own originator affirms that there is no reaction when

injected into the system, as in the case with "Tuberculin." Why? Because it contains no Tuberculin. The process of making destroys it. Heat and oxygen are deadly enemies to organic substances. Oxy-tuberculin is subjected to both of these for 120 hours. We are taught to boil tuberculous milk to make it harmless. The excuse given for Tuberculin oxidation is that oxygen of the air, coming in contact with the bacilli in cases of operation for tubercular peritonitis, causes a cure; at best, this is only a theory. It might be the argon of the air that effects the cure. Admitting the cure is the effect of the oxygen the bacilli are not boiled in it as are those in the preparation of oxy-tuberculin. After oxy-tuberculin is treated with soda the preparation, judging from all the known facts concerning heat, oxygen, veal and bacilli, is entirely neutral. It is of no value save for oxygen that may be present, and the food value of the veal. Fortunately for Dr. Hirshfelder his veal bouillon would not keep, and to preserve it he added 5 per cent. of boric acid. This one fact may perhaps hand his name down to posterity as one of the workers trying to destroy the greatest enemy of mankind. *For if oxy-tuberculin cures consumption, boric acid cures consumption.*

Is it strange? We should not marvel. Nothing is more soothing to inflamed surfaces than boric acid. Trioxide of boron is the basis of nearly all of the popular antiseptic dressings. It is not only antiseptic, but is a non-irritative preservative of animal tissue. It stops necrotic processes. It is healing. Further, it is noticed that animals that die upon the borax fields of California do not decompose. They absorb the boron until even their entrails do not putrify, but become odorless. Actual experiment demonstrates that culture media containing only three-tenths of one per cent. of boric acid will inhibit the growth of tubercular bacilli.

Some five months ago the above thoughts induced me to attempt the treatment of phthisis with a solution of boronoxide. This was specially prepared under my direction, care being observed to secure absolute purity. The preparation when completed exhibited a slight excess of about one per cent. of oxygen. Of this I introduced hypodermically from 5 C. C. to 30 C. C. daily at one sitting. The injection causes but little pain.

It is too early yet to say *cure*, but the results are certainly very gratifying. "His eyes become bright and his color changes from the gray hue of tuberculosis to one more nearly resembling that of health. The appetite rapidly returns, and with it a feeling of vigor which is most pleasant both to patient and physician."

Finally, may we hope to find a specific for consumption? Paul Gibbier, M.D., of the Pasteur Institute, New York, thinks we may, and suggests that it might be by finding some germ to bring into competition with the tubercular bacilli. I certainly do not think the specific will be found by means of the culture of the bacilli as in "tuberculin," or by immunizing the blood as in "antitoxine," or by anticipating the germ development as in "vaccine." The tubercular germ is peculiar to itself. Its food supply in the human body is never exhausted; or at least it is attacked only by the phagocite or an antiseptic. Malaria is similar; its specific destroyer is an antiseptic tonic. It is possible that as quinine effects the malarial germ so boron-oxide destroys the consumptive germ. The disease is properly called consumption, phthisis; the bacilli are consuming the vitality and the body is wasting away. The bacilli are having a hilarious time at the expense of the starving body. The consumptive is generally dyspeptic. We may predigest his food, the villi may absorb it, but it is not assimilated—it is not oxygenized. The boron, in addition to acting as an antiseptic, gives up its oxygen to convert the absorbed food into vital energy, fortifying the system against the attack of the already weakened bacilli, vanquishing them entirely. This, theoretically is the action. Very little is known of the chemical combinations of boron, especially within the body. We know that the possible formations of borates are almost innumerable, so varied and multiplied are its combinations. Most, if not all, of them have germicidal powers with little or no perceptible toxic effect upon the human body. Here is a field for wider and further investigation. Let us keep searching, or at least encourage the investigator, whether he is successful or not. It is knowledge we want. If this generation earns to cure consumption, its page will record the brightest conquest of all history.

CONCERNING CREOSOTAL.*

BY DR. PAUL JACOB,
Physician in Chief of Professor Leyden's First Medical Clinic of the
Royal Charite Hospital in Berlin.

During the course of the past year, from April 1, 1896, to April 1, 1897, the author has treated a large proportion of the 103 cases of phthisis pulmonum that occurred in his clinic with Creosotal. This is a thick oleaginous substance containing over 90 per cent. of pure creosote, and free from the nauseous odor and burning taste of the plain drug. These latter qualities, as well as other advantages which have been thoroughly detailed elsewhere,† were the reasons that determined him to employ the remedy so freely in the place of the older creosote preparations. The disagreeable by-effects incidental to treatment by these latter, more especially the marked disturbance of the gastro-intestinal canal, the great loss of appetite with its consequent deterioration of the general condition, are, according to the reports of various authorities upon the subject, entirely absent in Creosotal.

The usual dosage in the First Medical Clinic was: In the beginning, five drops of pure Creosotal three times daily, increased daily by the addition of three drops to each dose until twenty-five drops were taken thrice daily. At this height it was maintained for from one to four weeks; in isolated cases for several months. Then the dose was gradually diminished down to ten drops three times daily by similar stages, and then increased in the same way up to the maximum dose again, etc.

Special attention was paid to the diet during the treatment. This consisted chiefly of one and a half to two litres and a (one

*(Abstracted from paper read before the *Gesellschaft der Charite Aerzte, Berliner Klinische Wochenschrift*, 1897, No. 49, and from article upon the same subject, *Charite-Annalen*, XXII year, Berlin, 1897).

†Dr. Nordt, Inaugural Dissertation, "Concerning Creosotal," Berlin, 1897.

half to two quarts) of milk, two to six eggs, oatmeal, cocoa, potato soup, and malt extract, with vegetables and bread in sufficient quantity and proper form each day. Each patient was carefully weighed at intervals of eight days. Appropriate diet books, in which the patients themselves recorded the food that they took, enabled the attending physicians to ascertain and regulate its quantity and quality.

Each observation was begun by a careful search for tubercle bacilli when sputum was obtainable, so as to absolutely settle the diagnosis. In the few cases in which no sputum could be obtained, the results of physical examination and the history of the patient were such as to leave no doubt as to the correctness of the diagnosis. Physical examinations were repeated every week, and were carefully recorded.

Of the fifty cases treated with Creosotal, twenty-eight remained sufficiently long under observation to be of value.

The entire twenty-eight cases may be classified as follows: Treated with good results, eleven; with fair results, sixteen; with no result, one. This last case the author cannot explain.

In all the other cases good results were obtained, although with most of the patients the time of treatment fell in the fall and winter months, and the treatment could not be aided by the hygienic influence of fresh air. The colds so frequent in phthisical cases at these seasons retarded the progress of some of the cases; and they seemed to occur in just the cases that were being markedly benefitted by the treatment.

The general condition improved visibly in twenty-five of the cases. Case No. 5 said, after taking sixty grams (two ounces) of Creosotal, that she had not felt so well in fourteen years; the fever, night sweats, and feelings of weakness entirely disappeared after six weeks of treatment. In only three of the cases did the subjective condition remain bad.

In not a single case did the Creosotal have any permanently injurious effect upon the appetite. In five of the cases creosote, given by others, had caused complete anorexia; under Creosotal their appetite increased from week to week. In seventeen other cases there was the same result; and the six cases that had a good appetite when the treatment was begun, preserved it undiminished during the administration of the remedy.

The body weight was in most cases correspondingly increased. In sixteen cases the gains were up to twelve pounds; in three cases there was neither loss nor gain; and in five other cases there was a loss of from one to two pounds.

Creosotal had a very favorable effect upon the night sweats and upon the fevers. The former always disappeared in a short time, and the latter were recalcitrant in only one case.

Cough and expectoration disappeared entirely in four cases, and in four others there was no change at all. In all the remaining cases there was marked improvement in these symptoms.

With regard to the administration of Creosotal in children the author's experience is limited to two cases. In these two, however, it was very effective. He began with a dose of one drop three times daily, maintained for six days and then gradually increased up to ten drops thrice daily.

The phthisical diarrhoea was favorably affected by Creosotal. No new attacks of diarrhoea occurred during its administration in tubercular patients. Jacob's observations agree with the most recent reports upon that phase of the drug's action, more especially with that of Eschle made from the Laboratory of the late Professor Baumann. Eschle found that in other intestinal affections, and more especially in those occurring during the course of typhoid fever, Creosotal was to be warmly recommended as an intestinal disinfectant which traverses the entire canal, and is capable of thoroughly cleansing it.

The influence of the remedy upon the physical signs does not at first sight seem to have been a very marked one; yet in most cases in which the treatment extended over a period of six months or more, more or less improvement was noted. In two cases, Nos. 4 and 9, the physical signs of phthisis disappeared entirely. In six cases there was a marked, and in six others a moderate retrogression in the local processes. In eight cases the physical signs remained stationary; and in the five last cases they became worse during the time of treatment. The author proposes to make further investigations on the patients that have remained under observation to determine whether the Creosotal exercises any specific influence upon the tubercle bacilli, or whether it stops the local inflammatory processes.

In conclusion the author states that his observations are, in

general, in accord with the results obtained by other investigators. In spite of the danger of being too optimistic in regard to a disease so changeable as phthisis, the author firmly believes that his observations show a specific action of Creosotal in it. The influence upon the fevers and night sweats, which is the ordinary criterion of the effect of an antiphthisical remedy, was very marked. Moreover a number of the patients had been under treatment with other forms of creosote, etc., before they came under his care, and had been rather harmed than benefitted;† while under Creosotal they immediately began to improve.

Every case of beginning or not too far advanced phthisis can be benefitted by Creosotal. Naturally it must be aided by an appropriate dietetic and hygienic course. And it is the especial advantage of Creosotal as compared with creosote that by reason of its favorable influence upon the appetite and non-disturbance of the functions of the gastro-intestinal canal, a proper dietetic treatment can be fully carried out.

Selections.

SERO-THERAPY IN THE TREATMENT OF DIPHTHERIA.—In a very excellent paper with this title, read at the last meeting of the West Tennessee Medical and Surgical Association, by Dr. I. A. McSwain of Paris, Tennessee, which is given in full in the *Memphis Medical Monthly*, for March, 1898, he concludes as follows:

- To recapitulate the points arrived at in this paper:
1. The question seems settled that diphtheria is the product of the Loeffler bacillus.
 2. That antitoxic serum is now based upon a sound experimental foundation, and has the endorsement of the leading investigators of this and other countries.
 3. That beyond dispute its efficiency is very much greater when used early in the disease and in full doses.
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†See report of the I. Medical Poliklinik for 1896-1897. Charite Annalen, 1897.

4. That while there have been a few accidents supposed to have resulted from its use, the danger is insignificant when proper precautions are used, and is in no wise at all comparable to the gravity of the disease.

5. That for purpose of immunization and prevention of the disease, indications point to the possibility of literally modifying and limiting the disease to such an extent that it shall no more be regarded as one of the most devastating scourges of the race.

6. That the serum is the most efficacious of all known remedies in cases where intubation or tracheotomy become necessary.

7. And last: All honor to a most noble profession that, under the direction of an unseen yet guiding hand, staggers not at discouragements, yields not to opposition, but toils on while others sleep in its efforts to overcome disease, throttles the grim monster even in his strongholds, and mitigates the sufferings and evils entailed on the race by common heritage.

In closing I desire to state that in my practice I am in the habit of using the antitoxic serum prepared by Messrs. Parke, Davis & Co., of Detroit, Mich., which has given me eminentally satisfactory results.

KRYOFINE IN INFLUENZA.—Dr. Bresler reports some valuable clinical experience with this drug in the *Therapeutische Monatschafte* for October, 1897. The recent epidemic of influenza in the neighborhood of Freiburg, Silesia, gave abundant material for observations. The doctor tabulated his results and from these tables we glean the following interesting facts: The epidemic had been in progress some days when kryofine was introduced. It was at first given in $7\frac{1}{2}$ grain doses; the amount was cautiously increased to 15 grains, and equal doses, by weight, of phenacetine and antipyrine were interspersed. Only rarely did the temperature raise a few tenths of a degree after the ingestion of $7\frac{1}{2}$ grains of kryofine. In one case it is interesting to note that even 15 grains of antipyrine on the fifth day of the sickness, were powerless to reduce the temperature, whereas on the preceding days (2d and 3d) $7\frac{1}{2}$ grains of kryofine

were decidedly effective. In all the remaining cases the ingestion of kryofine was followed by a reduction of febrile temperature. The comparative action of antipyrine, phenacetine and kryofine were thoroughly and severely tested, with an invariable advantage for the new drug. The subjective symptoms were ameliorated by kryofine, obviously a proof that not only is the fever influenced to the credit of the drug, but also the disease to the advantage of the patient. Perspiration was occasionally noticed. Objectionable collateral symptoms did not appear; only once after 15 grains of kryofine there ensued, in a nervous, weakly female, with light body weight, cyanosis, continuing a few hours only; from which, however, she experienced so little discomfort that she had not herself been aware of its existence. In other cases when 15 grains of kryofine had been given no collateral effects were observed, so that, differing from Eichhorst, who recommends $7\frac{1}{2}$ grains as the usual dose, I should advise for future tests the use of larger doses—in individuals not markedly weak—perhaps 15 grains 1-2 times a day, or 11 grains twice, or $7\frac{1}{2}$ grains 3-4 times a day. A reprint of Dr. Bresler's valuable article, with tables in full, can be had by applying to C. Bischoff & Co., New York.—*Med. Fortnightly.*

RUSSIAN EXPERIENCE WITH THE SERUM-TREATMENT OF DIPHTHERIA.—A special committee of St. Petersburg physicians was occupied last year with the investigation of the results of the treatment of diphtheria by serum. Data were obtained from those physicians who had used the serum in their practice, and the entire investigation was executed with the greatest care and thoroughness. In 44,631 registered cases in which the serum was used, the mortality was found to be 14.6 per cent., while in 6,507 cases, where the serum was not employed, 34 per cent, of the cases ended fatally. Returns from each of the provinces show that the serum-treatment was instrumental in reducing the mortality even when the disease was epidemic. An important fact is the confidence that is expressed in this treatment by the patients, including the peasants. There are now in Russia eleven laboratories engaged in the manufacture of diphtheria-serum.—[*New York Evening Post.*]

IODOFORM EMULSION—TREATMENT OF SURGICAL TUBERCULOSIS.—The treatment of the surgical forms of tuberculosis by the injection of iodoform receives new support from reports from the clinic of its originator, Paul Bruns, of Tübingen. O. Briegel (*Beiträge zur Klin. Chir.*, Bd. xx, H. 1) presents a collection of thirty-nine cases of tuberculosis involving the wrist, all of the cases having been treated by iodoform injections. Of the thirty-nine cases, twenty-four were permanently cured by the injections, and of these nineteen were out-patients. The remainder of the cases had to be treated by other means—resection, amputation, etc.

The functional results were astonishingly good. "Indeed," says Briegel, "in more than half of the cured cases they were quite ideal." The function was never so good after resection.

A 10-to-20-per-cent. emulsion in olive oil was used. In the granulating form of the disease two to eight cubic centimeters was injected. When abscesses had been emptied ten to thirty cubic centimeters was used. The number of injections required varied from one to twenty-eight; usually three to seven were needed. Even cases in which abscesses and fistulae had formed, and in which disorganization of the joints and bones had produced a flail-like condition, were amenable to treatment. In using this form of treatment the most absolute asepsis must be maintained.—*Medicine.*

THE VALUE OF ARSENIC AND BELLADONNA IN CHOREA.—Dr. Walter Overend (*Lancet*, July 31st) concludes that: (1) Belladonna appears to be most beneficial in recent cases, and its influence is sometimes very marked in severer forms. (2) In obviously rheumatic cases arsenic in large doses may be given a trial, or may be combined with belladonna from the first. Belladonna may act by diminishing the excitability of the nerve centers, or by imparting an improved tone to their vascular supply. (3) In the wards of a hospital it is perfectly justifiable to give a child as much as thirty minims or more of tincture of belladonna every four hours for ten days or even longer. Certain proportions are necessary. The patient should be kept in bed, and the urine should be daily measured. Small doses of potassium acetate

may be added if it becomes much diminished or if the eyelids show any puffiness. In one child nocturnal incontinence occurred, and the dose was lessened. The occurrence of the papular erythema, which leaves raised circular lumps for a time, does not demand any diminution of the dose. Dryness of the throat and swelling of the parotids, should they occur, are merely temporary. The influence of the belladonna makes itself felt in about four days. Should no visible improvement occur before the tenth day, it would be useless to continue with it. As soon as the movements become trivial, or occur only during exertion, it is better to omit the belladonna, to begin massage of the affected muscles, and to administer cod-liver oil and syrup of the phosphate of iron or other tonics. The use of arsenic may be continued for a week or longer.—*St. Louis Medical and Surgical Journal.*

THE THERAPEUTICAL ACTION OF THE COLD BATH IN TYPHOID FEVER.—Drs. Robin and Binet (*Archives Générales de Médecine*) reported after careful chemical investigations that the cold bath increases the amount of air inspired and expired and increases the amount of carbonic acid gas excreted and the amount of oxygen absorbed. They conclude: 1. That in typhoid fever there is an exaggerated loss of nutrition, and large quantities of waste products as well as of ptomaines invade the tissues, and are not excreted as fast as they are formed. These products are not split up, owing to the decreased absorption of oxygen. 2. That our aim in such cases should be to increase oxidation. 3. That cold baths have a remarkable oxidizing power. 4. That they increase the respiratory processes, but above all they increase the total amount of oxygen taken in and increase its absorption. 5. That the respiratory change does not begin to take place until half an hour after the bath, and reaches its maximum at the end of an hour. 6. That the duration of the process cannot be sharply fixed. 7. That if the bath does not reduce the temperature it does not produce the above-mentioned change. The cold bath, by diminishing the temperature, lessens the increased tissue destruction and the production of toxins. Increased oxidation transforms the bacterial toxins into harmless, easily eliminable, soluble products. The cold

bath raises the arterial tension and increases the heart action, from which causes diuresis recurs and the products of tissue change are more easily carried off. These effects are all due to a reflex action from the nervous system.—*Medical Record.*

THE DIAGNOSIS OF SCARLET FEVER.—The diagnosis of scarlet fever is not always easy, and Lindsay (*British Medical Journal*) has very well summarized the main points to be borne in mind. These are:

1. Initial vomiting, very constant in children under ten, less so above that age, and rare in measles, German measles, and diphtheria.
2. Undue frequency of pulse—say 140 or 150—out of proportion to the other symptoms.
3. The rash, beginning on the upper part of the chest, over the clavicles, and about the flexures of the neck, often well marked on the back of the waist.

To discriminate between scarlatina and German measles Lindsay is in the habit of relying on the following points: In scarlatina there is initial vomiting; a brief but well marked prodromal stage, with vomiting, chills, headache, and sore throat, sometimes going on to ulceration; no early enlargement of post-cervical glands. In German measles there is no vomiting, no prodromal stage, the rash being often the first symptom and always appearing on the face; little or no constitutional symptoms; no ulceration of the throat; a very characteristic early enlargement of the post-cervical glands.—*Medical Age.*

EUCAINE vs. COCAINE.—The only safe criterion by which to judge of the value of any new medicament is careful, unbiased, and thorough clinical investigation by competent observers. Judged by this standard, eucaine can be said to have passed the experimental stage, and takes rank as the most prominent competitor of cocaine in the production of local anaesthesia. It is, therefore, with surprise that we note the persistent attempts in some quarters to belittle its importance. Among the clinicians who have given eucaine a thorough and impartial trial—many of

whom are well-known surgeons—a perfect unanimity of views prevails as to the value of this drug. With but one exception, all authors concede that it is much less toxic than cocaine, while equally efficient, and this fact alone weighs strongly in its favor. Aside from this, it has a number of minor advantages over cocaine, and as it is no more expensive than the latter, it will be preferred by many surgeons. Since reading the adverse criticism on eucaine, we have interviewed a number of surgical friends who have made extensive use of the new anæsthetic, and their testimony, in connection with a careful study of the literature, convinces us that eucaine represents a real advance in the search for an ideal local anæsthetic.—*International Journal of Surgery.*

BLACKHEADS.—Blackheads are not, as is generally thought, dust or dirt accumulated in the pores, but consist of fatty secretions of the skin and a coloring matter. The following mixture may be recommended for their removal:

R Kaolin.....parts iv,
 Glycerine.....parts iii,
 Acid acetic.....parts ii.
 Ol. odorat., ad lib.

M. Sig. Apply this mixture to the parts at night, and, if possible, also several times during the day. The blackheads will disappear when washed with this mixture and rubbed freely with a towel moistened with it, or can easily be removed after a few days.—*Tri-State Medical Journal.*

RECTAL CANCER (Differential Diagnosis). Manley (*American Medico-Surgical Bulletin*) says that diagnosis of rectal cancer cannot be made without visual and digital exploration, and due heed to clinical symptoms. The author urges careful search for evidences of syphilis, tuberculous ulcerations or other diseases. Many cases, misdiagnosed as cancer in the ano-rectal region, are not malignant at all, but would have yielded to mercury without surgical interference. The most striking characteristics of rectal cancer are insidiousness and painlessness, the early symptom being a sensation of full bowel, even after defecation. If cell hyperplasia occupies the vesico-rectal septum, the patient will have marked bladder symptoms, such as vesical tenesmus, pain in the back, etc.—*Clinical Recorder.*

Editorial.

THE MEDICAL COLLEGE COMMENCEMENTS OF 1898.

With three well equipped, thoroughly conducted medical schools, with as able and competent faculties and instructors as can be found anywhere, the annual commencement exercises are features of no little interest in this city of more than ordinary educational facilities. They are always looked forward to with the greatest degree of pleasurable enjoyment, not only by faculties and graduates personally interested, but by the large mass of our most cultured, refined and intellectual citizens. The evening of Tuesday, March 29th, witnessed the usual annual exercises at the Masonic Theatre of

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE.

This is the parent medical school of Nashville and one of the oldest in the entire South. The Masonic Theatre, where the exercises were held, was completely filled with the friends of the institution.

On the platform were seated the members of the faculty, the honor men, and a number of distinguished guests.

Rev. J. C. Morris, D.D., pastor of McKendree Church, opened the exercises with prayer, fervently offering thanks to God for the high calling upon which the young men were entering and invoking his blessings upon them as they went forth doing their labors of love.

Crown Torrence, of North Carolina, delivered the valedictory address. Mr. Torrence spoke of the highness of their calling and of the trials through which a physician must go. In closing he paid a high tribute to the faculty, under whose instruction the class of 1898 had been, and thanked them for the interest that they had shown.

After music by the orchestra, Prof. J. M. King, M.D., delivered the address on behalf of the faculty. After congratulating the graduates upon the choice of their life work, he spoke of physicians as important factors in civilization, ranking with educators and ministers, who should ever set a high standard of professional attainment and strive to reach it. Of all the learned professions, that of medicine was the least excusable for ignorance. The healing art was a most precious boon, and the young graduates were now entering upon a broad and noble mission of life. A physician played a no less prominent part as a citizen than as a physician. There were many questions of vital interest demanding their attention. In legislation and in all public measures the highest citizenship should be their guide. Political prejudices should never enter their lives. There was much to be accomplished for humanity.

Concluding, Dr. King said: To have no more than the service of a man versed in the bare practice of medicine, to have him support the State and municipality in the enactment and enforcement of measures for the protection and improvement of the health of the people, is a great accomplishment in the movement for the regeneration of mankind; but let us hope to have the service of a physician of still higher ideals, a man of the highest character, possessed of learning, conscience and courage, awakened to the conditions of the age, in whose veins flows the milk of human kindness, and whose presence in the sick-room is the sunshine before whose gentle morning kiss the shadows of darkness fade away, who will look into the personal details of human affairs—look into the lives of his patients, their food, their drink, their dress—and speak out with authority and force concerning the evil results—the evil results of secret as well as open violations of nature's laws—the effect upon generations yet unborn—and give instruction for prevention as well as cure; who will look into the social intricacies of life—the dissipation and worthlessness of giddy society—and mould and modify it according to the correct lines of existence in harmony with the higher faculties, and in view of the creation and purpose of men on earth. This, gentlemen, is the embodiment of the highest ideal of your noble profession. May your acts and deeds be dominated by such an ideal.

As Secretary of the Faculty, Prof. King then announced the names of the following gentlemen, who came forward and took their places on the stage:

J. W. Adams, J. D. Alexander, L. D. Allen, Tenn.; J. A. Armstrong, Texas; R. E. Bratton, T. B. Brown, Tenn.; R. V. Bonham, Mo.; T. L. Bowers, Tenn.; J. N. Butts, I. Ty.; J. M. Corpening, N. C.; J. G. Chambers, Ala.; J. M. Cross, Ga.; J. H. Davis, Tex.; W. B. Dorris, W. M. Dowlin, C. C. Drake, Tenn.; J. M. DuBose, Tex.; J. D. Duckett, Ala.; W. Egleston, F. H. Gilbreath, N. C.; E. L. Gleavas, J. R. Gott, Tenn.; W. F. Grubbs, Ky.; C. W. Harris, S. C.; A. W. Hilliard, W. H. Hodges, J. L. Hutchison, Tenn.; W. Jackson, Tex.; J. B. Jacobs, S. C.; H. W. Jarrell, La.; W. W. Jenkins, Tex.; F. Johnson, Ala.; A. L. Jones, Tex.; E. C. Kane., Tenn.; W. C. Kimbrough, W. G. Kimbrough, Tex.; O. H. Looney, Miss.; W. B. Mackey, J. T. Mize, Tex.; N. T. Moore, Ark., H. H. Murrey, Tenn.; W. L. McClain, Ind.; J. L. McClary, T. J. McKamy, Tenn.; C. M. McNelly, Tex.; H. C. McRee, A. G. Nichol, Tenn.; A. A. Nichols, N. C.; W. O. Parrish, Tenn.; F. L. Proctor, Ark.; E. C. Puckett, Mervin Rives, Tex., W. A. Rogers, N. C.; S. T. Rucker, J. A. Sienknecht, L. F. Sory, Tenn.; C. Torrence, N. C.; T. B. Turner, I. Ty.; W. W. Walker, H. S. Ward, Tenn.; J. W. Watson, I. Ty.; C. B. White, D. F. Whited, J. Whitworth, Jr., Tenn.

The announcement of the name of Miss Kane was greeted with a storm of applause.

Chancellor W. H. Payne, LL.D., then, in appropriate terms, conferred upon them the degree of Doctor of Medicine.

Hon. Samuel Watson, in a neat speech, then presented the medals to

the three young men with the highest general average. H. S. Ward, who received the University of Nashville medal, attained a general average of 98.91, which is the highest grade ever made by any graduate of the institution. J. D. Jacobs, who received the Alumni medal, attained an average of 98.43. James Whitworth, Jr., who received the W. K. Bowling medal, attained an average of 98.66.

Prof. W. G. Ewing, M.D., Dean of the Faculty, announced the honor roll, which is made up of all graduates who attain an average of 85 or over. Those on the honor roll were: D. F. Whited, W. F. McClain, W. C. Kimbrough, C. C. Dake, W. Eggleston, Crown Torrence, F. H. Gilbreath, A. G. Nichol, S. T. Rucker, and O. H. Looney.

A great many beautiful flowers from the friends and admirers of the young men were distributed, after which the audience was dismissed with the benediction by Dr. Morris, thus closing the 47th annual commencement; after which the Faculty and graduates, with a few invited guests, repaired to the Duncan Hotel, and participated in a most enjoyable banquet, tendered the graduates by the Faculty. Prof. C. R. Atchison, M.D., presided, and appropriate but brief addresses were made by the Chancellor, W. H. Payne, Prof. S. S. Crockett, M.D., Hon. Sam'l Watson, H. S. Ward, M.D., and Dr. J. B. Neil. The menu was superb; the wit, rare and racy.

MEDICAL AND DENTAL DEPARTMENTS OF THE UNIVERSITY OF TENNESSEE.

On the same night at the Vendome Theatre the commencement exercises of the Medical and Dental Departments of the now well-renowned and historic State university were held. Notwithstanding several important attractions elsewhere in the city were on hand this evening, as well as the commencement exercises above stated, the commodious auditorium was well filled indeed with an appreciating and cultured audience, largely composed of ladies. The spacious boxes on either side filled to overflowing with members of the fairer sex, made a most fitting border to the magnificent array of beautiful faces and handsome toilets that tested the seating capacity of our largest theatre, running back and overflowing into the rear foyer, which was occupied by quite a number of gentlemen, who seemed well satisfied with "standing room only."

Promptly at 8 P. M., after an enjoyable musical selection rendered by the Vendome Orchestra, the faculty took their places on the stage, which was a classical setting, tastefully decorated by a well-arranged selection of flowers, ferns and other horticultural arrangements, and the evening's entertainment was opened by an appropriate prayer by Rev. J. I. Vance, D.D., pastor of the First Presbyterian Church of this city, beseeching fervently the success of the institution and all connected with it.

Prof. W. D. Haggard, M.D., President of the Faculty, who acted as master of ceremonies, then introduced F. R. Yarborough, M.D., of Alabama, who in a most modest, but eloquent manner delivered the valedictory on the part of the medical class, he having had the honor of being selected by the faculty. He spoke briefly, yet feelingly of the pleasure

and regret of such occasions. His manner was more that of the student of science than of forensic display, yet it lacked not either in rhetoric, pathos, or logic; and his description of that mysterious heart affection, contagious in character from which all of them, each and every one had, or at some time would suffer, its palpitations, its apprehensions, and of which they had received no instruction from their estimable teachers, and from which he hoped they would all successfully and satisfactorily recover, by developing a like condition in some one of the opposite sex, was a scientific discussion most highly appreciated by all present and one not usually the theme of a valedictory address. His remarks throughout were most heartily applauded, his courteous method and originality of ideas being well worthy of a devotee of the science of his choice.

H. S. Boyer, D.D.S., of Tennessee, was then introduced and delivered the valedictory address on behalf of the Dental graduates. With the eloquence of a naturally gifted orator, he showed that he could use his own mouth well, in giving vent to a thoughtful and reluctant farewell to faculty and students, as well as care for the months of others in his further professional career. His address, as were the others, was brief, yet pointed with graceful allusions showing a marked devotion to professional duties.

Prof. W. C. Bilbro, M.D., delivered the faculty charge to the graduates of the medical department. It was both scholarly and impressive, as well as witty and humorous, developing rounds of applause and that general good feeling of personal enjoyment on the part of everyone present who were pleased, gratified and entertained as well as amused. His impressive words of emulation and advice were only the more so by reason of his lively sallies of wit and humor, which were of a chaste and classic order. His only approach to slang, if it could be so called, was the advice that "the doctor who was looking for a soft place, could most readily find it by looking under his hat." His selection by the class as the member of the faculty to deliver the final charge to the graduating class was not only appreciated by the large audience present, but shows the cordial good feeling between him and the students, and their esteem and respect for him.

Prof. Boyd Bogle, M.D., D.D.S., delivered a thoughtful charge to the dental graduates, setting forth the honorable use of a scientific mind.

James Maynard, of Knoxville, in the absence of President Chas. W. Dabney, representing the Board of Trustees of the University of Tennessee, was introduced and conferred the degrees with a dignified speech, which was brief and pointed. The duties of the physician were clearly and most ably set forth. He mentioned the fact that the world was waiting for its young men, and as it had waited for the great men of the past until they had showed themselves worthy, so it would wait for them. When the little Corsican showed by his training, his courage, his determination at Lodi and Arcola that he was capable of being called to the duties of First Consul, he was called, as he was later to be Emperor of France. The world had waited for a sheriff of New

York to show that he was worthy of being the Governor of that State, and later, of President of the Nation. So had it waited for one of their own profession, notably, Prof. D. Hayes Agnew, who from an obscure boyhood in Pennsylvania became one of the most noted surgeons of the land. Yes, the world would wait for them—but they must show by earnestness, persistence, devotion to duty tireless and unceasing, that they were worthy, and they would be called to high places as had been all who had preceded them. At the conclusion of his address, the names of the graduates of the Medical Department were announced by Prof. Paul F. Eve, M.D., Dean of the Medical Department, and those of the Dental Department by its Dean, Prof. J. P. Gray, M.D., D.D.S., and as their names were called the following gentlemen came upon the stage and received from the representative of the Board of Trustees the official Diploma of the University, bearing the signatures of the members of the Faculty, the President of the University, and the Governor, Secretary, Treasurer and Comptroller of the State of Tennessee. As Mr. Maynard presented each recipient with the well and worthily-won parchment he gave each a cordial and hearty shake of the hand, extending the congratulations of the institution he so ably represented.

The names of the graduates of the respective departments are as follows:

Medical Department.—J. E. Adkisson, Tenn.; C. M. Brown, Ky.; J. T. Carman, Tenn.; T. C. Coston, Tex.; J. M. Clement, Ky.; F. F. Collins, Tenn.; W. M. Crockett, Tenn.; R. C. Church, Tenn.; J. P. Darnall, Tenn.; H. B. Esmond, Mass.; J. N. Fireline, Ky.; J. T. Hughes, Ky.; J. T. Harris, Tenn.; Douglas Haggard, Tenn.; W. Z. Jackson, Tenn.; W. E. King, Tenn.; Ellis Kackley, Ill.; J. J. Lancaster, Tenn.; H. H. McCampbell, Tenn.; W. W. Mitchell, Tenn.; A. M. Pitts, Ala.; T. J. Ray, Ky.; C. A. Sherrill, Tex.; J. W. Smith, Ky.; J. L. Shelley, Ky.; E. F. Salter, Ala.; F. P. Tilford, Ky.; N. M. Tucker, Tenn.; T. F. Taylor, Tenn.; C. C. Threlkel, Tenn.; C. W. Warterfield, Tenn.; F. R. Yarbrough, Ala.

Dental Department.—E. D. Barton, Ala.; F. A. Barber, Ky.; H. S. Boyer, Tenn.; M. A. Drummond, S. C.; H. K. Fink, Ill.; C. T. Fisher, Ark.; F. E. Godfrey, Mo.; A. J. Hartenstein, Tenn.; D. M. Haste, Tenn.; F. M. Jenkins, Cal.; J. W. Montgomery, Mo.; R. M. Risenhoover, Ky., S. P. Simms, Miss.; E. S. Woolfolk, Mo.

The following gentlemen to whom were awarded honors were then called to the stand and the prizes following their names were presented to them by Prof. Jas. S. Ward, A.B., M.D., in eloquent and appropriate terms:

Medical.—Paul F. Eve Faculty Medal—Chas. W. Warterfield, Tenn.; Faculty Second Honor—Herbert H. McCampbell, Tenn.; Faculty Third Honor—Douglas Haggard, Tenn.; Special Medal, Surgical Laboratory—B. Whit Sutton, Tenn.

Dental.—Faculty First Honor—D. M. Haste, Tenn.; Faculty Second Honor (Morrison Bros.)—F. A. Barber, Ky.; Faculty Third Honor—J.

W. Montgomery, Mo.; Medal in Prosthesia (Dr. F. R. Sandusky)—R. M. Risenhoover, Ky.

The First Honor in the Medical Department carries with it the position of Interne to the Nashville City Hospital; the Second Honor that of Interne to the Davidson County Asylum Hospital.

After the benediction by Rev. J. I. Vance, the large and well-pleased audience slowly dispersed, the graduates taking a final farewell handshake from each other and the various members of the faculty. The musical selections rendered by the Vendome orchestra were tasteful and melodious, and the "Dixie" variations, as usual in a Nashville audience, demanded its accustomed recognition. The peculiar feature of the occasion was the pithy, pointed addresses, nothing tiresome or wearying, their variety, appropriateness and originality all contributing to make the closing exercises of the session of 1897-8 the most agreeable and attractive of all that have preceded it.

MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY.

Wednesday evening, 30th ult., in the splendid auditorium of the Medical Department building on South Summer Street the exercises were held in the presence of a large audience, filling the hall to its utmost capacity. The rostrum, the hallways and corridors of the building were luxuriant in their array of floral and greenhouse decorations. Eisemann's orchestra furnished the music which pleasingly entertained the audience during the exercises. Occupying the rostrum were the Faculty together with Chancellor J. H. Kirkland, Rt. Rev. Bishop Hargrove, Rev. R. A. Young and Hon. Jos. E. Washington, the graduating class occupying the seats immediately in front. After the opening invocation by the Rt. Rev. Prelate, the Chancellor introduced Prof. Duncan Eve, A.M., M.D., who delivered the charge to the class in lieu of Prof. Savage, who had originally been selected, but was absent from the city on account of ill health. The subject matter we hope to place before our readers in a subsequent issue, and it is needless to say that the address was delivered in the usual forcible and felicitous manner of this able and gifted member of the Faculty.

Hon. Jos. E. Washington was then introduced and delivered an address replete in eloquence, wit, humor and wholesome advice enunciated in his usual happy style. He began by saying that it had been his privilege to pay, not to play the doctor. The modern physician must of necessity keep right up to date. Mr. Washington's comparisons of the old school doctor with the doctor of the present day kept the house in roars of laughter. He eulogized the physician of to-day in the highest terms. The lame had been made to walk and the deaf to hear until one would suppose the day of miracles had come. His sincere tribute to the country practitioner was most highly appreciated, especially by those who were acquainted with the trials and tribulations in his earnest devotion to duty of this important factor in American civilization. In conclusion Mr. Washington urged the young men not to lay aside their books,

but let their life be one of action. Success did not always come at once, to the young physician, and they must "learn to labor and to wait."

"Without a clean body, clean heart and clean hands no physician should be allowed to cross the threshold of the sick room." He closed with the parting words of Polonius to Laertes.

Dr. W. L. Dudley, Dean of the Faculty, submitted to the Chancellor the report of the year's work, which he said had been the most successful in the history of the school. The total enrollment was 247. The names of the students on the honor roll in each of the various classes were read. A most creditable number of students obtained grades above 90, in the different studies. He then announced the names of the following graduates who came forward and received their diplomas at the hands of Chancellor Kirkland.

After reading the honor roll, Dr. Dudley presented the class of sixty-six young men to the Chancellor as candidates for the Doctor of Medicine degree. The young gentlemen, who occupied seats immediately in front of the platform, arose and Chancellor Kirkland conferred upon them the degree. He assured them that Vanderbilt University would watch over their career as lovingly in the future as it had in the past.

Chancellor Kirkland then announced the names of the graduates, who stepped forward and secured the much-coveted diploma. The class was as follows:

W. E. Anderson, C. F. Andrews, Ala.; T. C. Booker, Cal.; E. W. Buck, I. Ty.; T. J. Coble, Tenn.; M. L. Cook, Ky.; P. S. Cox, S. C.; L. F. Crook, Tex.; T. F. Darwin, Tenn.; W. R. Davis, Va.; W. H. Deaderick, Tenn.; F. W. Dortch, Ark.; J. A. Ellis, Tenn.; J. G. Evans, La.; N. F. Feury, N. J.; J. W. Fitzgerald, J. F. Fox, Tenn.; C. H. Furnee, Pa.; W. W. Graham, R. B. Griffin, H. B. Hargus, Tenn.; U. P. Haw, Mo.; F. Head, Tenn.; F. P. Hixon, Ala.; M. R. Hopkins, Tenn.; J. L. Houston, Ala.; P. R. Jones, R. L. Jones, Tenn.; T. K. Jones, Tex.; J. W. Ketcherside, Ga.; H. McCoy Klingman, P. M. Kimbrough, Miss.; H. F. Langhorst, Ill.; J. D. Lenty, Tenn.; R. N. Looney, Ga.; R. F. McDaniel, Ky.; R. B. Macon, J. H. Marable, Jr., Tenn.; C. L. Maxwell, Tex.; E. May, Ky.; J. E. Moseley, Tenn.; E. P. Moon, Ala.; W. K. Michael, Miss.; H. L. Nease, H. G. Pangle, J. A. Parks, T. I. Pegram, E. S. Phillips, Tenn.; J. G. Pope, Tex.; F. Pyott, Va.; H. C. Rees, Tenn.; J. B. Riddle, N. C.; J. C. Robertson, Cal.; W. W. Rosser, Ala.; G. H. Savage, Tenn.; O. F. Schubert, Ill.; W. F. Smith, Tenn.; L. V. Stabler, Ala.; E. E. Straw, Va.; T. Stringfield, N. C.; J. H. Thomas, Tex.; G. E. Vaughan, Ky.; C. R. Walker, Ala.; O. West, Tenn.; W. E. Yount, Mo.; J. D. Williams, N. C.

Dr. Dudley then proceeded to award the medals. The Founder's Medal was awarded to Dr. R. L. Jones, of Tennessee, who had attained a general average of 96.5 in all his classes. Dr. J. T. Fox, of Tennessee, was awarded second honors, having attained a general average of 94.5. Dr. E. Straw, of Virginia, was awarded third honors, his general average having been 94. Fourth honors were awarded to F. P. Hixon, of Ala-

bama, whose general average was 93.1-6. First honors entitle Dr. Jones to serve as interne at the City Hospital. Second honors entitle Dr. Fox to the position of physician to the Vanderbilt clinic, and third honors give Dr. Straw the position of interne at the County Hospital.

Special medals were then awarded as follows: By Dr. W. Frank Glenn, Professor of Genito-Urinary Surgery, to W. H. Mason; by Dr. J. T. Altman, Professor of Physical Diagnosis, to W. H. Mason; by Dr. G. P. Edwards, Professor of Electro-Therapeutics, to J. H. Thomas.

In the middle class, a scholarship was awarded to J. H. Blackburn, of Kentucky, who made a general average of 97.7. L. H. Hightower, of Tennessee, ranked second, with a general average of 96.1.

In the junior class, a scholarship was awarded R. L. Carswell, of Tennessee, who made a general average of 98.65. C. A. Snoddy ranked second, with a general average of 97.91. The scholarships which these young men receive are worth \$50.

Dr Dudley then announced that, besides the medals and diplomas, "there were other tokens of friendship, and perhaps love," which would be distributed. A great number of beautiful bouquets were then distributed to the various members of the class who had been remembered with these pleasing testimonials.

Chancellor Kirkland then invited the audience to visit the various rooms and inspect the apparatus, etc., after which the benediction was pronounced by Bishop Hargrove.

But few of the audience left the building immediately, preferring to examine the elegantly equipped laboratories and rooms for the teaching of the great science of medicine.

THE TENNESSEE STATE MEDICAL SOCIETY.

The Sixty-Fifth Annual Session will be held in Jackson, Tenn., April 12th, 13th and 14th. All regular physicians in the State are eligible for membership, and are most cordially invited and earnestly urged to attend and become members. Railroad fare at the usual one and one-third rate. Ample hotel accommodations and the noted hospitality of the citizens of Jackson will be a sufficient assurance of every degree of comfort. A reception on the part of the citizens of this beautiful little city tendered the members will be a most enjoyable feature. The following is a partial program of papers and essays promised, to which material additions will be made:

The Plasmodium Malaria and its Importance as a Means of Diagnosis in the Continued Fevers of the South. By D. Y. Winston, M.D., of Clarksville.

Puerperal Mastitis. By C. N. Sebastian, M.D., of Martin.

Some Thoughts on Uterine Cancer. By T. J. Crofford, M.D., of Memphis.

- Examination of the Eyes of Pupils in the Public Schools of Memphis.**
By J. L. Minor, M.D., of Memphis.
- Hygiene of Pregnancy.** By J. H. Preston, M.D., of Humboldt.
- Paper.** By R. W. Griffin, M.D., of Tiptonville.
- Report of Six Amputations for the Relief of Osteo-Myelitis following Severe Ulceration of the Leg.** By M. Goltman, M.D., of Memphis.
- Report of Cases.** By W. F. Rochelle, M.D., of Jackson.
- The Pathology and Differential Diagnosis of Intestinal Obstruction.**
By Richard Douglas, M.D., of Nashville.
- The Cause of Disease and its Prevention.** By Henry A. Dykes, M.D., of Chattanooga.
- Typhoid Fever.** By C. C. Sullivan, M.D., of Waverly.
- The Accurate Diagnosis of Typhoid, Malarial and Typho-Malarial Fever.** By Wm. Krauss, M.D., of Memphis.
- Fever, Just Fever.** By D. J. Roberts, M.D., of Nashville.
- A Case of Vesical Calculi.** By A. B. Ramsey, M.D., of McMinnville.
- Second Summer Complaint of Children.** By J. S. Cain, M.D., of Nashville.
- A Plea for the Conservative Management of Uterine Inflammations and Displacements.** By I. A. McSwain, M.D., of Paris.
- Ulcer of the Stomach.** By J. T. Altman, M.D., of Nashville.
- Clinical Microscopy.** By E. B. Sangree, M.D., of Nashville.
- Duties of the County Health Officer in Regard to Jails and Poor Houses.** By J. C. Taylor, M.D., of Waynesboro.
- Epidemic Jaundice.** By H. X. Richardson, M.D., of Fowlkes.
- Alimentation in Disease.** By Louise Drouillard, M.D., of Memphis.
- Report of Two Cases of Human Monstrosity.** By W. S. Scott, M.D., of Dickson.
- Observations in Electro-Therapy.** By G. P. Edwards, M.D., of Nashville.
- Transfusion.** By S. R. Miller, M.D., of Knoxville.
- Illustrative Specimens of Perforative Appendicitis; Ruptured Tubal Pregnancy; Carcinoma Uteri; Gall-Stones and Fibroid Tumors of the Uterus.** By W. D. Haggard, Jr., M.D., of Nashville.
- Castration for Reflex Neuroses following Mumps, with Report of Cases.** By J. S. Nowlin, M.D., of Shelbyville.
- A Later View.** By S. S. Crockett, M.D., of Nashville.
- Gun-Shot Wounds of the Abdomen.** By J. B. Murfree, M.D., of Murfreesboro.
- Night Sweats of Phthisis.** By L. P. Barbour, M.D., of Tullahoma.
- Fuss, Feathers and Foolishness.** By T. J. Happel, M.D., of Trenton.
- Indiscretion in Diet.** By Jas. H. Atlee, M.D., of Chattanooga.
- Some of the Causes of Unsuccessful Treatment, as Ordinarily given for Chronic Suppurative Otitis Media.** By L. B. Graddy, M.D., of Nashville.
- The Recent Epidemic of Parotiditis.** By J. M. Clack, M.D., of Rockwood.

The Surgical Treatment of Tubercular Bone Affections. By Paul F. Eve, M.D., of Nashville.

The Presidential Address: The Relation of Public Morals to Public Health. By T. K. Powell, M.D., of Dancyville.

THE MEDICAL EXCURSION NEXT JUNE TO DENVER AND SALT LAKE CITY.—The American Medical Association meets in Denver, June 7th to 10th. One of the features of the gathering will be an excursion from Denver to Salt Lake City and return via the Denver & Rio Grande, Colorado Midland and Rio Grande Western Railways, through the "Heart of the Rockies," furnishing a splendid opportunity to view the most magnificent scenery on the American continent. Salt Lake City is an ideal summer resort, and the bathing at Saltair, in the great Salt Lake—inland salt sea nearly a mile above sea level—is superb in June. There are more attractions in and about Salt Lake City than any place in the world. Later notice will appear in this publication, giving rates for this excursion and all details. In the meantime send to F. A. Wadleigh, G. P. A., Rio Grande Western Ry., Salt Lake City, for copy of pamphlet on Salt Lake City and the Rocky Mountains.

PETROLEUM EMULSION.—Although the medical properties of petroleum have been known since a very early date, yet it is only within a few years that the remedy has been prominently brought to the attention of the profession. There can be no question whatever but that petroleum is an oil which is digested and absorbed like any of the fatty foods. The oil is emulsified by the pancreatic juices and absorbed by the lacteals. The Angier Chemical Co. put petroleum on the market in the form of an emulsion because they believe that as the process of emulsifying thoroughly breaks up the oil into minute particles it thus predigests it and puts it in a condition so that it can be absorbed at once. The Angier emulsion has combined with it the well-known hypophosphites. Each ounce of the emulsion contains 33½ per cent of purified petroleum and twelve grains of the combined salts of lime and soda. In consumption, bronchitis, and in all the various diseases of the pulmonary tract, experience shows this great preparation to be of great use.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universites of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

SOME of the prepared foods are advertised in newspapers and circul-lars on the cure all and "Save the doctor bill" plan. We have noticed some of their advertisements wherein the wonderful properties of the foods are extolled as cures for a long list of diseases. The Imperial Granum Food, however, is advertised only in the medical press and is sold through the recommendation of the profession. It deserves the sup-port of physicians on this account therefore, as well as for its merits as an ideal prepared food.—*The Wisconsin Medical Recorder*, February, 1898.

PAIN IN OTITIS.—Dr. George H. Powers, Professor of Ophthalmology and Otology in the University of California, San Francisco, in an article in *The Medical News*, writes as follows, in reference to the treatment of pain in otitis: "At my first visit I found a copious discharge of bloody serum from the ear with hardly a trace of pus. He suffered from severe cephalgia, but there was no special tenderness in or about the ear, and no swelling. Thorough cleansing of the meatus with dry cotton relieved the pain in the head remarkably, and with a dose of antikamnia, 10 grains, he slept some hours."

SANMETTO IN ENURESIS NOCTURNA.—Mrs. H. M. Robertson, M.D., of Middleport, N. Y. writing, says: "I have just received a letter from the mother of the girl to whom I gave the Sanmetto for nocturnal enuresis, and she assures me that her little girl has no more trouble of that kind, nor has had for some time, so thinks she is cured. I feel sure this case has been cured by Sanmetto, for it was an obstinate case, and did not seem to yield to anything before I gave her the second bottle of Sanmetto, although I had tried all the usual remedies. I believe in giving credit where it is due."

INTERESTING TO EYE, EAR AND THROAT SPECIALISTS.—The Chair of the Eye, Ear and Throat at the Medical College of Virginia, made vacant by the death of Professor Charles M. Shields, will be filled at the annual meeting of the Board of Visitors of the College April 21st. All applications, accompanied by credentials, should be presented to Christopher Tompkins, M.D., Dean, Richmond, Va.

SANDER & SONS' EUCALYPTOL EXTRACT (Eucalyptol).—Apply to Dr. Sander, Belle Plains, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo. Dallas, Texas, and New York, sole agents.

PROF. W. L. NICHOL having dissolved his connection with other medical institutions, will in future lecture alone in the Sewanee Medical College, University of the South.

A PRE-ANTITOXIN MORTALITY OF 40 PER CENT. REDUCED TO 3.6 PER CENT.—Prior to the introduction of Anti-Diphtheritic Serum, the mortality from diphtheria at the Harper Hospital, Detroit, averaged for a number of years 40 per cent. According to the 34th annual report of the Hospital authorities, as published in the February number of the *Harper Hospital Bulletin*, page 73, 141 cases were treated at the Hospital during 1897, with the following results:

| | CASES. | DEATHS. |
|--|--------|-------------|
| Ordinary Diphtheria..... | 115 | 1 |
| Laryngeal Diphtheria..... | 26 | 6 |
| — | — | — |
| | 141 | 7 |
| Excluding 2 cases Moribund on Admission..... | 2 | 2 |
| — | — | — |
| | 139 | 5 |
| Mortality under Antitoxin Treatment | | 3.6 per ct. |

The antitoxin employed exclusively in Harper Hospital during 1897 was the Anti-Diphtheritic Serum of Parke, Davis & Co.'s Biological Department, and the remarkable reduction displayed in the death-rate reflects the highest credit on the efficacy of this matchless product.

POLK'S MEDICAL AND SURGICAL REGISTER OF THE UNITED STATES AND CANADA is now undergoing its fifth revision. Physicians who have not given their names to the canvassers are urged to report to headquarters at once, giving full information. Address R. L. Polk & Co., Detroit, Mich.

THE SALICYLATES AND THE BEST MEANS OF ADMINISTERING THEM.—It would be a work of supererogation to undertake, at this late day, to prove the great and permanent value of the salicylates in the treatment of rheumatism in its various forms. For over twenty-five years salicylic acid and the salicylates have been recognized as standing at the very head of remedies in this class of diseases.

There are, however, very many and grave drawbacks to the use of either the acid or any of its salts alone in a treatment which may last, as in rheumatism, gout and neuralgia, for a long period of time. Being a powerful antiferment and sharing this property with most of its salts, salicylic acid impairs digestion and soon sets up a dyspeptic condition, almost as intolerable as the pains which it is intended to overcome. Its

after-taste can be covered and concealed in no manner yet discovered, so that very soon the patient takes it only with great difficulty.

In Tongaline the salicylates are so combined with corrigents that there is no reactionary rebellion against them by the organs of digestion and assimilation, while their efficacy is not affected in the least. The experience of thousands of physicians corroborates this statement and concurs in the fact that Tongaline affords the very best method of administering the salicylates.

DR. A. M. RITTER, of Milo, Ohio, January 29, 1898, writes: I wish to speak especially of the merits of Papine as an analgesic and sedative. I have had success with it when all others remedies of a like character had failed. One case in particular, of intestinal indigestion, in a child twelve years old, attended with a great amount of pain, and extreme nervousness, and insomnia. The remedy worked like a charm in relieving pain, and giving rest. The remedy was given in five-drop doses to begin with, as required to give rest and relieve pain. Papine was used in this case for at least six months, in increasing doses, without doing the least harm. It has been now three months since Papine has been discontinued, and the child is in perfect health. I consider Papine one of our most valuable remedies as a pain reliever and nerve sedative in well-selected cases.

THE ONE OF MANY.—Among the testimonial letters received from physicians by the manufacturers of Imperial Granum, is one in which they take even more than usual pride, and from which we quote as follows:—“I am sending you a photo. of my little two-year-old boy, who has been raised nearly altogether on Imperial Granum. He was very delicate, and we had a great deal of trouble with him owing to his weak digestion, and I feel that your Imperial Granum saved his life. He never tires of it, and it is the only one of the many prepared foods that seems to agree with him.”

Samples of this justly celebrated dietetic preparation are sent to physicians on request.

THE importance of a support for the abdomen, particularly in advanced pregnancy, cannot be overestimated; and if every physician realized its importance there would be a much greater demand for suitable appliances than now exists. The most approved abdominal supporter for pregnancy and for support after operations of laparotomy, appendicitis or any weakness of abdomen, are made by G. W. Flavell & Bro., 1005 Spring Garden Street, Philadelphia, who solicit your patronage direct, assuring a prompt and satisfactory execution of all orders entrusted to their care.

Reviews and Book Notices.

SEXUAL NEURASTHENIA (Nervous Exhaustion), Its Hygiene, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous. By GEO. M. BEARD, A.M., M.D., and A. D. ROCKWELL, A.M., M.D. Fifth edition, with formulas. 8vo, cloth, pp. 308. Price, \$2.00. E. B. TREAT & Co., 241-243 W. 23d St., New York, Publishers. 1898.

The fifth edition of this excellent work, necessitated by the exhaustion of its predecessors, demonstrates its standard character. We have had occasion to speak in most favorable terms of its predecessors, and can add but little in the way of commendation. The valuable work of the late Dr. Beard is most excellently edited by Dr. Rockwell, whose additions and notes are most excellent. In his revision of this edition, useless matter has been omitted, and other that has been demonstrated of value has been added. It is a most complete and thorough consideration of the important subject, and, though not large in size, will be found great in value.

APPLIED PHYSIOLOGY FOR ADVANCED GRADES. Including the Effects of Alcohol and Narcotics. By FRANK OVERTON, A.M., M.D., Late House Surgeon to the City Hospital, New York. Cloth. 12mo, 432 pages. With illustrations and diagrams. Price, 80 cents. AMERICAN BOOK COMPANY, New York, Cincinnati and Chicago.

This book has been prepared to meet the requirements of teachers and schools for a modern text-book of Applied Physiology, which should embody the latest results of study and research in biological and chemical science, and the best pedagogical methods in science teaching. The book is not only modern and scientific in treatment, but it is written in such a clear and direct style as to make every subject interesting and comprehensible. The topical arrangement and clear typography of the pages will render the use of the book convenient and satisfactory.

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patients do not come labelled "Disease of Uterus," "Disease of Ovary," etc. They come complaining of Symptoms; and the discovery which organ is in fault is often the greater part of the diagnostic problem. I have thought it more useful to the student and practitioner to arrange the maladies according to their leading symptoms, that is, the one usually first mentioned by the patient. Such a division is not pathological or logical. It involves a little repetition, and in some instances it is difficult to say where the disease should rightly be placed, for the same disease will make one patient complain of one symptom, another of a different one. But I hope the clinical utility of this arrangement may compensate for these defects."

THE YEAR-BOOK OF TREATMENT FOR 1898. A Critical Review for Practitioners of Medicine and Surgery. Crown octavo, 488 pages. Cloth, \$1.50. LEA BROTHERS & CO., Philadelphia and New York. 1898.

No medical practitioner, either general or special, can afford to be without this book, the value of which far exceeds its very modest price, for it furnishes a critical and trustworthy epitome of a year's progress in all branches of practical medicine. That it has performed this service acceptably is evident from the demand which has rendered necessary the publication of fourteen consecutive annual issues, and it may be truly said that the possessor of the series enjoys the advantage of a connected view of medical advance, always fresh and brought up to the latest date by each new volume. The entire domain of practical medicine is thus annually covered in a series of twenty-five chapters, each being assigned to a recognized authority who gives in full detail all that is new, tried and true, with a critical statement of the comparative value and applicability of the various drugs, formulæ and methods of treatment.

The work is systematically arranged and well indexed, thus furnishing a ready reference hand-book of greatest convenience and reliability.

For your reviewer's convenience we append transcript of title, price, etc.

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DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX.

NASHVILLE, MAY, 1898.

No. 5.

Original Communications.

CHARGE TO THE GRADUATING CLASS OF THE MEDICAL DEPARTMENT OF VANDER- BILT UNIVERSITY.

BY DUNCAN EVE, A.M., M.D., OF NASHVILLE, TENN.

Professor of Surgery and Clinical Surgery in the Medical Department
of Vanderbilt University.

Gentlemen of the Graduating Class: Had not sickness, envious of our good fortune, deprived us of an address from one of our most talented colleagues this occasion would have been infinitely more interesting, and great indeed would have been our delight in listening to a charge from Prof. Savage; elegant in diction, profound in thought and rich in erudition.

The faculty in assigning me the place made vacant by his illness must certainly realize their misfortune, which I the more keenly feel, because I am compelled in the midst of ceaseless

and exacting engagements, in the briefest possible time and at odd intervals to formulate the remarks I propose to offer you to-night.

You know how sincerely we rejoice at the honors you have won, and which you this night so gracefully wear; and with what satisfaction we bear just and willing testimony to the diligence, energy and industry that secured your laurels, and also to your courtesy and manly deportment throughout our entire acquaintance.

This night our relations change, but do not dissolve. From pupils you become peers, from entered apprentices you become master-workmen, admitted into free and full fellowship in one of the noblest sciences that ever blessed mankind; into the fraternity of Honorable Medicine.

There are two separate and distinct periods in human existence. Over the first presides intellectual curiosity. It is the period of human action and observation. This curiosity stimulates activity to its highest exertion. It is restless. It admits of no repose. Indolence cannot keep company with it.

“It must be up and doing,
Still achieving, still pursuing.”

It need not “learn to labor,” for this lesson it has already attained; but only “*to wait.*”

Sallust pronounces the recording of past events one of the noblest vocations of the human mind. In this he, perhaps unconsciously to himself, names the second period of human existence. Old age is a natural historian. It draws from the store-house of memory the treasures which intellectual curiosity have gathered there—its data, its facts, its statistics. This makes its philosophy. It will not adventure into new fields, it will not hunt for facts and data which the future may disclose. It gathers the wealth of its experience about it and rests upon the lessons there taught.

Strange as it may appear the physician of ripened experience is the theoretician. The young and middle-aged man is the practical member of the profession—the experimentalist of science, with vital forces in full play. No time here for recording past events, this must be postponed to the ripeness of life.

The last faculty to mature, to the utmost capacity, is judgment. It grows as the imagination ceases to play. It increases even when memory releases its hold upon current events, and inflexibly grasps the scenes, incidents and conditions of the past. Here then, indeed, comes age, either telling or writing what has been —tradition or history.

You are now in the first period of human existence; you are bathed in the light of the rising sun. It is for you to determine now and here whether you will resolutely, fixedly so perform the duties imposed upon you by what you have achieved, and by the conditions and circumstances that now surround you, and that will continue to attend you, that when the silvery rays of the morning have been transmitted into the golden beams of the evening of life, you will stand forth as the ennobled historian and philosopher of the Medical Profession.

You have been fortunate in the selection of the school from which you take your degree. A university based upon such solid endowments as to escape ephemeral existence. A university so upheld by influences of a favorable nature as to command and secure in its faculty the highest order of scholarship, intelligence and wisdom in its administration throughout all its departments.

You have been equally fortunate in the selection of your profession, the most progressive of all the learned professions. It antedates the pyramids, and its enduring record is found in their solid structure. It exhausted the wealth of the Greek and Latin tongues even in its infancy, and retains its terminology in their vernacular to this day. It found conspicuous recognition in the apostolic college, and its mission is "*Peace on earth and good will toward men.*" It has kept pace with civilization wherever it appeared. It uses the means, the agencies, the applicancies, the achievements of the past and present, in its development and progress; and predicts and verifies the conquests of the future. It levies tribute upon all collateral sciences, and while aiding them to carry out its purpose and object, it specially appropriates from them what is needful and useful to itself.

Its province has so enlarged that its branches become specialties, and each commands all that talent, genius and energy can

give. It has taught the necessity of general practice in its devotees for at least ten years, to determine the selection of a specialty where fullest power of concentrated thought, investigation and experience can be employed. I grant that I am partial to specialism in the profession, as my occupation as a surgeon would suggest—that branch of medical science which reaches certainty and is susceptible of demonstration. The full consciousness of this fact makes me generous and liberal, and not too critical of the less fortunate branches of our profession.

Gentlemen, your generous natures will pardon the impulse which kindles into enthusiasm at the mere mention of the name *surgery*, and your patience will forgive the detention, while I, as with a minute hand upon a dial-plate, point to a few of the improvements lately wrought by this grand and glorious science.

It has seized the photographer's art, and from the "bright effluence of essence increase," it has sent the "X" ray through the human system, and illuminated it with a light almost approaching transfiguration.

Since physiological experiments and complimentary experiences of surgeons have positively demonstrated that certain cortical regions of the brain represent "centres" for definite functions, we are called upon to find strictly circumscribed portions of the "*omnium sensorium*," in paralytic and irritative conditions, so that tumors, abscesses, etc., of the brain can now be diagnosed, the different sinuses entered, foreign bodies removed, and hemorrhage controlled by means hitherto unknown.

We cannot fail to observe with much satisfaction the wonderful progress that has been made in abdominal surgery—of the many operations for intestinal anastomosis Murphy's button deserves special mention, sufficient time having elapsed since its introduction to place its use on a sound basis. Extirpation of a distinct lobe of the liver, and the removal of the spleen, kidney and stomach, are procedures now regarded justifiable, and are successfully undertaken in this nineteenth century. Justifiable, because death is inevitable without an operation; justifiable, because science and skill have so much increased the probability of success.

Railroad, like military surgery, has established a department of its own. I here quote from an address on surgery I delivered not long since before the Illinois State Medical Society:

"Here is tested the utmost endurance and resistance of which vital force is capable; recovery often attained in the midst of despair, fatal results where injuries appear slight and hope is buoyant. Here conservatism can hold complete sway. Within the last few years the treatment of railway injuries has in this respect improved so much that the results mark this era as one of the brightest in the surgical world. The vast extent of railroad territory in this country offers opportunities for the performance of the most arduous duties relating to our profession. Thousands of miles of railroads, traversed every hour by ponderous machinery, driven at the highest rate of speed from ocean to ocean with American haste and impatience, and as a consequence, human life and limb are necessarily exposed to danger. Hence so great are the contingencies that the experience of the past cannot anticipate the nature and character of the injuries of to-morrow. To meet these requirements, a surgical corps is organized under complete discipline. Even the law demands this. Recently the Supreme Court of Kansas decided that a railroad company which does not employ competent surgeons to attend its injured employes is liable in damages. The adoption of a hospital system, such as is now used by many roads, is to be commended as the ideal mode of caring for the injured on all trunk lines. This department of surgery has grown so rapidly that the American National Railroad Surgeons' Association ranks with the largest medical organizations in the world."

The great advancement made in recent years in our knowledge of the minute processes of tissue changes in disease, of the causes underlying them, and of the agencies of repair, have placed the practice of surgery upon a broad and scientific basis, and the surgeon of the present desiring to keep pace with modern methods and discoveries must completely assimilate this knowledge and build upon this foundation. Though this part of a surgical education was formerly regarded as something merely ornamental, yet it has now become an eminently practical feature of every-day life.

We could say much of the improvement in bone and joint surgery, and other marked advancements and improvements along both general and special lines, in even the last decade that have become trite and as familiar as household words, but time will not allow.

The pleasant relations between the surgeon and the physician endear the profession to us. Here no jealousy or envious

rivalry obtains, but brothers are engaged in the promotion of human happiness, the surgeon recognizing his dependence upon the physician, and the physician willingly admitting the value of surgical aid—hence kindness, courtesy and a beautiful observance of Medical Ethics prevails, verifying the wisdom of the founders of this code, which I commend to you as the rule to govern your professional conduct.

Gentlemen, I beg to impress upon you the importance of your office in the practice of your profession. It may be small or large, humble or grand, but whatever it is, it is yours; your armory, your studio, and should be your abiding place when not called away by your practice. Franklin said: "Keep your office and it will keep you."

"Speech is silver, silence is golden." The tongue is an unruly member, and the man who controls it is greater than "he who conquers a city." Speech is often incorrectly interpreted, no man can translate silence. Therefore never speak except when occasion requires, and when you are sure you can say what ought to be said. Professional secrets are sacred, and remember they should ever be kept inviolate.

Do not be a carper, or a captious critic. Speak well of everybody, and everybody will think and speak well of you. Be gentle in the sick room, and cheerful to your patients.

Do not write your name in the sand, but write it on the hearts of men—

"In characters of living light."

How can we bid you goodbye with a more appropriate adieu than by presenting the words of Frederick Schiller?

"Have faith, where'er thy bark is driven—
The calm's disport, the tempest's mirth—
Know this: God rules the hosts of heaven,
The inhabitants of earth.

Have love. Not love alone for one;
But man, as man, thy brother call;
And scatter, like the circling sun,
Thy charities on all.

Thus grave these lessons on thy soul—
Hope, faith, and love—and thou shalt find
Strength when life's surges roll,
Light where thou else were blind."

CLINICAL EXAMINATION OF THE BLOOD.*

BY LOUIS LEROY, M.D., OF NASHVILLE, TENN.

Demonstrator of Histology and Pathology in Medical Department of
Vanderbilt University.

There is no tissue in the body that is of greater importance to the welfare of the individual than the blood. Since it is the source of nutrition and means of katabolism, and comes into intimate contact with nearly every structure of the body, it is evident that even slight derangements may lead to the most widespread disturbances in the general health. This fact was early known and appreciated by the laity and frequently finds expression in such terms as "blood is poor," "blood is out of order," etc. In fact these terms are too frequently used by physicians simply as a convenient way of explaining (?) something of the exact nature of which, as a rule, they have not the remotest notion.

Of late years, however, the subject has received serious attention, and a great deal of accurate work has been done, both as regards perfection of technique and systemization of results. These results have in many cases led to rapidity and exactness of diagnosis, which could not have been approximated in any other manner, and to the actual discovery of some diseases, which could not otherwise have been conceived of.

For our present purpose, this would lead us to divide diseases into two classes:

1. Those in which the blood examination gives a positive diagnosis.
2. Those in which the examination only lends an element of collateral evidence.

In this respect haematology, as Cabot suggests, is analogous

*Read at Nashville Academy of Medicine.

to the microscopical examination of wine, and will probably be derided as a delusion and hyper-refinement, and ascribed to optical hallucinations of the microscopist by a certain number of doubting Thomases years after it has established its positive value, as was the case with the latter. Before considering the clinical aspect of the subject, a few words concerning first the blood itself and next the technique may not be amiss.

From a clinical standpoint we have to consider principally four things :

1. Colored corpuscles.
2. Colorless corpuscles.
3. Cells which normally have no existence in the blood.
4. Number of above per cubic m.m. (or roughly $\frac{1}{25}$ inch), which virtually expresses the relation of solid to liquid elements of the blood.

The red blood corpuscle is too well known to require much comment. It is a biconcave disc, convex on its outer edge, 75 microus ($\frac{1}{8200}$ inch) in diameter, and about 2 microus ($\frac{1}{1200}$ inch) in thickness at the edges.

Normally, these corpuscles are not nucleated, they stain readily in eosin and other acid dyes. When examined under the microscope there is seen a central depression lighter in color than the rest of the cell, called the "delle." This is more plainly visible in the stained specimen and with a little practice will allow a fairly correct estimate of the per cent. of haemoglobin present.

The colorless corpuscles vary greatly in size, shape and probably, chemical composition, as evinced by their different reactions to stains.

The principal varieties normally found in the blood are as follows :

1. Small lymphocytes.
2. Large lymphocytes (including transitional.)
3. Polymorphonuclear neutrophile.
4. Eosinophile.

This division is based on both morphological characteristics and chemical composition, *i. e.*, staining reactions. The small lymphocyte is a mono-nuclear cell roughly the size of a red blood corpuscle. The nucleus occupies nearly the entire cell;

the surrounding protoplasm is a mere ring, and sometimes not to be made out. These cells are devoid of granules, the protoplasm being perfectly clear.

The large lymphocytes are identical with the preceding, except in point of size and amount of surrounding protoplasm, in both of which they greatly exceed the former, measuring frequently 13 to 15 m. Polymorphonuclear neutrophile cells are formed of irregularly-lobed nuclei, containing many fine granules which stain only in neutral dyes.

The eosinophile cells are similar to the preceding variety in all respects except the granules, which are larger and stain with eosin and other acid aniline dyes. These cells occur normally in the blood in about the following proportion: Small lymphocytes, 25 per cent.; large lymphocytes, 5 per cent.; Polymorphonuclear neutrophile, 69 per cent.; eosinophile, 1 per cent. Any marked departure from these percentages is indicative of some pathological process.

Besides these, some other varieties of corpuscle are found in certain pathological conditions. The *myelocyte* is a colorless cell containing a single large nucleus and neutrophile granules in which respect it resembles both the large lymphocyte and the polymorphonuclear neutrophile.

The *eosinophilic myelocyte* is similar to the neutrophile myelocyte in all respects save that the granules are of the same variety as found in the eosinophile, and stain only in acid dyes. *Normoblasts* are normal-sized red blood corpuscles which contain nuclei. *Gigantoblasts* are nucleated red blood corpuscles much larger than the normal cell.

All the above varieties can be very easily recognized under the microscope and are found only in disease.

TECHNIQUE.

One of the first things to determine in a blood examination is the percentage of haemoglobin. For this purpose a number of instruments and methods have been devised.

Herschl's method consists of making a standard dilution of the blood, and then comparing its color with a graduated colored glass which is calibrated empirically to correspond to the various percentages of haemoglobin.

Gower's method consists of diluting a fixed amount of blood with water until it corresponds to a standard color contained in a sealed tube. The amount of water required indicates the percentage of haemoglobin.

Both of these methods are liable to give more or less erroneous results, as differences in the quality of light used affect the apparent color, and few individuals are able to distinguish delicate shades accurately enough to read correctly to within 5 per cent., many not within 10 per cent.

An easier method and one requiring less expensive apparatus is Hammerschlag's modification of Roy's. This is based on the fact that in conditions in which there is no dropsy present, the specific gravity of the blood runs parallel to the percentage of haemoglobin. The process is as follows :

Allow a small drop of blood to fall into a urinometer glass which contains a mixture of benzole and chloroform, the specific gravity of which is 1,059. If the blood is heavier than the mixture it will sink ; if lighter it floats. If it floats, add drop by drop, (mixing thoroughly at each addition) benzole, until the drop remains suspended at about the middle of the glass, at which point it is obviously of the same specific gravity as the liquid in which it is suspended. Now insert the urinometer, and read the specific gravity of the mixture directly. Had the drop of blood been heavier than the fluid we should have added chloroform until it remained suspended and then ascertained the specific gravity of the mixture in the same manner.

The percentages of haemoglobin corresponding to the specific gravities are as follows:

| S. G. | H. | S. G. | H. |
|--------------|--------------|---------------|--------------|
| 1,030..... | 20 per cent. | 1,049 | 80 per cent. |
| 1,035..... | 30 " " | 1,051 | 65 " " |
| 1,038..... | 35 " " | 1,052 | 70 " " |
| 1,041..... | 40 " " | 1,053.5 | 75 " " |
| 1,042.5..... | 45 " " | 1,056 | 80 " " |
| 1,045.5..... | 50 " " | 1,057.5 | 90 " " |
| 1,048..... | 55 " " | 1,059 | 100 " " |

The next point to occupy our attention would be the number of corpuscles present in a given quantity of blood. This can be ascertained with great accuracy by means of the Thoma-Zeiss haemocytometer.

This instrument consists essentially of a hollow compartment of known depth into which a drop of diluted blood (of known dilution) is placed and covered by a cover-glass, and examined under the dry high power of the microscope. The corpuscles will be seen in the squares into which the bottom of the compartment has been ruled, and can readily be counted. By counting the number of them in each compartment (knowing the depth of the cell and the size of the square) it becomes simply a matter of multiplication to find first the number of cells in a c.m.m. of the diluted blood, and then of the undiluted sample. Knowing the normal number of corpuscles, we can very easily determine any departure from the standard.

Another method which is perhaps a little more rapid is the use of the haematokrit. This instrument is used in connection with the centrifuge and is based upon the principle that when any fluid containing suspended particles is placed in a tube and rapidly rotated, the particles tend to accumulate at the end of the tube farthest from the center of rotation, provided the particles be heavier than the fluid in which they are suspended.

By filling a graduated capillary tube with blood and then rapidly rotating it, we find all the corpuscular elements collected at one end, and can easily read off their percentage by means of the graduations.

While this may not give the exact number of cells, still it does give a very important point, viz.: the available oxydizable surface. These methods of counting are applicable to both red and white corpuscles.

The examination of the finer structure of the blood, especially of the white cells requires some method of staining. There are numbers of formulæ for this purpose, but none of such value as the Erlicts-Brondi triple stain. This solution consists of a combination of orange green, acid fuchsin and methyl green. Specimens stained by this means show the red blood corpuscle orange red, the nuclei of the leucocytes apple green to blue, the neutrophile granules a purplish red, and the eosinophilic granules a bright red. This method will not stain the plasmodium malariae however, for which purpose recourse must be had to some other stain.

Probably the best stain for this purpose is methyl blue com-

bined with either eosin or acid fuchsin. This will stain the plasmodium blue, and the haemoglobin of the cell red.

With the foregoing in mind we can now proceed to consider a few of the clinical conditions in which a blood examination will give valuable information.

The first conditions to claim our attentions are the anemias. These of three types, viz.: secondary, primary and chlorosis (which though usually classed with the primary, will be considered separately.)

The ordinary forms of secondary anemia show a diminution in the number of red cells. Qualitatively they may show some diminution in the amount of haemoglobin as shown by a large delle and light color in stained specimens. The cells may also be slightly smaller than normal.

Progressive pernicious anemia is distinguished from simple anemia, leukemia, Hodgkin's disease, the cachexia of malignant disease and chlorosis by having the following characteristics:

The red blood corpuscles are extremely irregular in size and shape. Some of them may attain double the normal size (macrocytes), others may be only half the size of a normal cell (microcytes). The shape varies even more than the size of the cell, and we find them sometimes exhibiting horse-shoe forms, sometimes club-shaped, again sausage-shaped, etc.

Nucleated red corpuscles indicating profound regenerative disturbances are a constant and important factor. These are of two types—the normoblasts and the megaloblasts, the latter being the most numerous in this condition. The red cells are greatly diminished in number, usually about 1,000,000 per c.c.m., one-fifth normal count. The leucocytes are diminished, though the percentage of lymphocytes in the cells present is usually high. A small percentage of myelocytes is also present. The average diameter of the red cells is increased and we frequently find among them cells which stain a purplish color, showing that they have undergone a chemical change (regression) and are now affected by some of the neutral or basic dyes.

Chlorosis may be readily distinguished from the various forms of anemia with which it might be confounded clinically by the relatively low haemoglobin (an average of 50 per cent). Another point of interest is that the blood of such cases tends

to coagulate very rapidly. This can also be distinguished from conditions of mal-nutrition and cases of general debility in which the blood is nearly normal.

In distinguishing the next series of diseases one fact must be borne constantly in mind, viz.: the difference between the various forms of increase in white cells. In plain leucocytes the adult form of cells (polymorphonuclear neutrophile) only are increased.

In leukemia it is the younger cells (lymphocytes) that predominate, though abnormal types (myelocytes) are also found in great numbers. It is upon the relative percentage of the different varieties of white cells that some of the most valuable diagnostic points are based.

A blood examination is often of great value in the diagnosis of obscure types of pneumonia, which may resemble malaria, typhoid or grippe. In the first we find marked leucocytosis, the count of the cells often reaching 50,000 per c.m.m., whereas in malaria, typhoid, or grippe, the white cells are scarcely if at all increased. Furthermore, the presence of the plasmodium in malaria, and of the serum bacillus reaction in typhoid would render the diagnosis still more positive.

Another disease which is extremely difficult of diagnosis in atypical cases is typhoid fever. It may be confounded with malaria, pneumonia, meningitis, abscess of the liver, or other conditions of deep-seated suppuration.

In typhoid fever we have an entire absence of leucocytosis, the count remaining nearly normal throughout the disease, while in all the above, except malaria (in which we will find the plasmodium) leucocytosis is invariably present.

The presence of leucocytosis will exclude ovarian or pelvic neuralgia, gall stones, renal colic and floating kidney in the diagnosis of appendicitis.

The presence of leucocytosis again will serve to distinguish pyosalpinx, pelvic abscess and suppurative peritonitis from any of the non-suppurative affections, endometritis and cystitis, which show a normal leucocyte count.

In the diagnosis of pleurisy with effusion, emphysema, pneumonia and malignant growths may be excluded by the presence of leucocytosis. Considerable light may be thrown upon cases

in which the diagnosis between gastric ulcer and cancer is uncertain, the latter having a much higher leucocyte count than the former.

The foregoing must be taken simply as a severely brief sketch of a few of the methods and applications of haematology. There are other broad fields in the subject which have not been mentioned. For example, the bacteriological examination of the blood and animal parasites, including malaria, which subject in itself would afford interesting material for a paper of far greater pretensions.

In closing I would again call attention to the fact that the chief value of a blood examination lies rather in the collateral evidence than in the positive diagnosis, which it may give in a few diseases. It is not to be considered as a diagnostic panacea, but should be accorded a position parallel to urinalysis, and be resorted to as a means of clearing up many a doubtful case, if not accepted as a factor in routine work. It is also the only certain means of ascertaining the result of treatment in chronic or pernicious anemias, which may either improve or get worse slowly. In a case of this kind an increase in haemoglobin and corpuscular count would be proof positive of an improvement, while the converse would show that the treatment was doing no good.

Selections.

DEGENERATION.—A correspondent asks us to define the term “degeneration,” which is used so commonly now as a shibboleth of scientific reproach. We sympathize with his search after truth, and would indeed like to help to a proper definition of a term which is in danger of passing into a mere by-word. Since Nordau’s book this term has tended to become popularized, and hence is gradually losing that definiteness of meaning which is so essential in scientific nomenclature. It has had at best but a doubtful right to live, because it does not so much express what is demonstrable in science as what is merely imaginable.

We all know that there is a tendency in some individuals and in some family stocks towards deterioration, and this is observable in countless ways in the intellectual, moral, and physical life; but the slowness with which the process takes place, its incompleteness in most instances, and the negative rather than positive value of many of its signs, render it difficult if not impossible to catch the salient features of the decay and to embalm them in a phrase.

The tendency of modern science is undoubtedly to no longer confine itself merely to the phenomena of the material or physical world. It reaches out to analyze and define the far more elusive phenomena of the intellectual and moral spheres. For this enterprise it is not as yet always well equipped by its methods or its training. There are many and distinct evidences that in this tendency science is often ill-adapted and its teachings somewhat premature. One of these tendencies is shown, perhaps, by the constant misuse of glittering generalities. Such a term is sometimes mistaken for a demonstration, whereas, in fact, it is often nothing more than a working hypothesis. This, we think, is undoubtedly the case with the term "degeneration." The truth of this is shown in the fact that this term cannot be appealed to yet without misunderstanding and even passion by scientists themselves, which fact supplies a crucial test that the word has not yet acquired a distinct psychological or medico-legal value.

If we should attempt to define "degeneration," as it undoubtedly exists—and has always existed and will always exist—we should say that it is a condition in which the individual or the family or the race, from inherent causes as well as from an unwholesome environment, has departed so far from a normal type as no longer to be able to meet the requirements of our social evolution. We grant that this definition is rather too broad, and that the application of it to individual cases will always be a matter of individual opinion. But this failure to define—if such it be—is only in accord with our underlying thought, *i. e.*, that the term at present has no distinct scientific value.

The special science which has undoubtedly made the most—if not always the best—use of the term "degeneration" is psychi-

atry. This science has always felt the need—which grows greater every year—for the recognition of the great underlying law of insane heredity. This condition is as difficult to define as it is essential to recognize. The term “degeneration” has evidently been hailed by some psychiatrists as a solution of the difficulty, whereas it is nothing more than another name for it. The danger now is that the name, having been accepted by the few, will be forced upon the many, as standing for something that has at last been rescued from obscurity. To our mind it is as yet nothing of the sort; the obscurity still remains in large part about heredity and the so-called stigmata of degeneration. The fault will be in accepting a mere term instead of searching persistently for the thing itself.

But does the thing itself exist? If we regard it as a disease, with a distinct etiology and symptomatology, we should say so. But if we depict it as a tendency, with infinite gradations, we must say yes.

The danger lies in expecting too much of the term and granting it too free and too wide a currency. The special science which it represents is itself showing some signs of being “degenerate” and of bearing some degenerate fruit, especially in criminal anthropology and medical jurisprudence.—*Philadelphia Medical Journal.*

PRACTICE vs. THEORY.—Fanciful theories (a la hammer and board test) cannot exist in opposition to years of practical application of William R. Warner & Co.’s standard pill formulæ, years which have demonstrated the rapid disintegrating properties and consequent therapeutic value of Warner’s soluble pills. Millions of William R. Warner & Co.’s pills have been used by practitioners throughout the world, and the immense number of professional endorsements we have attest their solubility and potency.

Commenting on the “hammer and board” test, the *Monthly Retrospect of Medicine and Pharmacy* sums up the whole matter in a few words:—

“Is it possible that physicians have prescribed an ‘insoluble and inert’ class of preparations throughout their career? If so,

the question naturally presents itself. To what can be traced the excellent results following the administration of mass pill in numberless instances? If the ingredients of these mass pills did not oppose and correct a diseased condition what did?"

Any remedial agent which has 'deteriorated with age' and is 'insoluble' would have no effect when taken. Therefore if the desired results are obtained, and the patient has been cured, that is *prima facie* evidence that the said remedy has not 'deteriorated' and that it is entirely soluble."

Physicians relying on an experience of over forty years with "Warner's Soluble Pills" with satisfactory results, will continue to prescribe the pill which disintegrates in twenty minutes, (Warner's Pil. Cathartic Compound), in preference to the one that disintegrates in one hour and five minutes, (Friable Pil. Cathartic Compound), even though the former will "dent a board" and the latter will not.

Warner's Pills are soluble, potent, permanent and reliable, because they are prepared from pure drugs, in a scientific manner. The coating (sugar and gelatin) hermetically seals and protects the contents indefinitely and upon ingestion of the pills, the coating dissolves in a few minutes, thus liberating its ingredients in a condition favoring rapid assimilation.

THE QUESTION OF DIET IN TYPHOID FEVER.—In a leading article in the *Therapeutic Gazette* for March 15th the writer urges the importance of a liberal diet in typhoid fever, and warns the practitioner against the tendency to relapse into what is known as routine treatment and adhering rigidly to fixed lines of diet when a little thought and care would enable him to vary the diet and so improve the nutrition of the patient. It has been the custom, he says, of a great number of the profession for many years to order an absolute milk diet for patients suffering from typhoid fever, and to continue them on this diet for a number of days or even a week after the fever has disappeared and the temperature of the patient has been normal. Further than this, this diet is frequently insisted on when complications of typhoid fever arise which still further aid in decreasing the patient's vitality, and often a milk diet is insisted upon when it

seriously disagrees with the patient, who because of idiosyncrasy, or because of some complication of his disease, is unable to digest milk properly.

These conclusions, he adds, have been reached not only from general and personal experience in which he has recently had ample opportunity to become convinced of this matter, but from an article published by Dr. Frederick C. Shattuck, of Boston, in which he states that from 1886 to 1893, 233 cases of typhoid fever were treated in the Massachusetts General Hospital under a milk diet, with a mortality of ten per cent.; from 1892 to 1897, 147 cases were treated under a much more extended diet, with a mortality of 8.1 per cent. Dr. Shattuck recognizes fully the liability to error in reckoning from too small figures in any infectious disease, and, while he does not urge that this slight decrease in mortality may have been due to the more liberal diet allowed, it certainly points to the fact, as he thinks, that the more liberal allowance of food has no deleterious influence.

Dr. Shattuck believes, the writer continues, that we should treat the patient rather than the disease, and feed him with reference to his digestive power rather than solely with reference to his fever, particularly as there are many other articles of diet than milk which can by no possibility exercise a harmful influence upon the intestinal ulceration. The diet list which he allows, and which would certainly be considered very liberal in the average hospital and in many cases of private practice, is as follows:

1. Milk, hot or cold, with or without salt, diluted with lime-water, soda-water, apollinaris, vichy; peptonized milk; cream and water (*i. e.*, less albumin); milk with white of egg, buttermilk, kumyss, matzoon, milk whey, milk with tea, coffee, cocoa.

2. Soups: Beef, veal, chicken, tomato, potato, oyster, mutton, pea, bean, squash; carefully strained and thickened with rice (powdered), arrowroot, flour, milk or cream, egg, barley.

3. Mellin's food, Horlick's food, malted milk, somatose.

4. Beef juice.

5. Gruels: Strained corn-meal, crackers, flour, barley-water, toast-water, albumin-water with lemon-juice.

6. Ice cream.

7. Eggs, soft boiled or raw; eggnog.

8. Finely minced lean meat, scraped beef; the soft part of raw oysters; soft crackers with milk or broth; soft puddings without raisins; soft toast without crust; blanc mange, wine jelly, apple sauce, and macaroni.

From this list the writer would eliminate the soups, the beef juice, and the minced lean beef. It has been his experience that all these preparations tend to produce or to aggravate pre-existing diarrhoea, and the beef broth, as is well known, provides a very favorable culture medium for the typhoid bacillus. He states that he has frequently seen the animal broths substituted for milk, and active, ill-smelling diarrhoea with great flatulence has followed. To this list he thinks soft cup-custards may be added, and instead of limiting the patient to milk with the white of egg, the entire egg boiled just long enough to take away its raw taste, and yet not to harden the white, may be given. He has recently seen the most valuable results follow this diet, and he states that from one to six eggs prepared in this manner and administered by means of a spoon or in a cup, if the patient is strong enough to drink, will do much toward maintaining strength, particularly in cases in which milk is not tolerated.

—*New York Medical Journal.*

TREATMENT OF GASTRIC ULCER BY LARGE DOSES OF BISMUTH.—Dreschfeld (*The Lancet*, March 5, 1898) in a communication on this subject mentioned the experience of Fleiner, who obtained good results by the injection of from twenty to thirty grammes (from 300 to 450 grains) of bismuth in suspension in water into the stomach by means of a tube after previous lavage. He also referred to the work of Mattheys on the action of bismuth in hastening the cure of experimentally produced ulcers in the stomachs of dogs. Professor Dreschfeld pointed out the inconveniences and dangers of using the stomach tube in cases of gastric ulcer, and stated that he had observed excellent results by giving large doses of bismuth by the mouth after ordinary doses had proved unsuccessful. Doses of from thirty to forty or even fifty grains of bismuth subnitrate were given three times a day suspended in water. Under these, pain was rapidly relieved, vomiting ceased, digestion improved, allowing

light nitrogenous food such as fish or fowl to be given, and the ulcer quickly healed. He had not seen any bad effects from these large doses other than a little pain and diarrhoea—never constipation. He had used this treatment chiefly in chronic cases, but in some acute cases after recent hematemesis it had proved successful. In acid dyspepsia, too, it rapidly relieved the symptoms. In neurasthenic conditions with symptoms resembling those of gastric ulcer it had also been of great benefit. Two cases of gastric ulcer which were not relieved by large doses of bismuth given by the mouth were cured by carrying out Fleiner's method of lavage of the stomach and injection of the bismuth by means of a tube.—*Medicine.*

EXTRA-UTERINE PREGNANCY.—From a study on this subject by Dr. Chaput the following conclusions are announced: (1) The differential diagnosis between haematocele and pyosalpinx is usually difficult; (2) non-ruptured extra-uterine pregnancy before the fifth month can only be suspected; (3) in extra-uterine pregnancy complicated by non-encysted hemorrhage surgeons are unanimous as to the proper treatment being immediate laparotomy; (4) in encysted haematocele or effusion the choice lies between (a) laparotomy and (b) vaginal incision. The latter is far from being free from danger, and the author always performed laparotomy if haematocele resisted ordinary medical treatment. Even if it is first discovered on making a vaginal hysterectomy or puncture, he would perform laparotomy, which makes it possible to take away the ovum and placenta and stop bleeding. In discussing these propositions Dr. Bouilly thought that in any case of extra-uterine pregnancy, one had to do with an abdominal tumor which indicated laparotomy. Laparotomy is also indicated when sudden alarming symptoms make one suspect rupture of extra-uterine pregnancy. The symptoms of haematocele from rupture of extra-uterine pregnancy usually make the diagnosis easy; suppression of menses, suddenness of onset of symptoms, more or less peritonitis, and development of tumor in Douglas' pouch. Incision through the posterior cul-de-sac is the best treatment. Bouilly had operated in thirteen cases with the best results. Dr. Tuffier thought the diagnosis of

rupture by no means easy. Out of four cases seen by him he mistook the first for acute peritonitis from perforation; in the second no diagnosis was made. He agreed with Bouilly that incision through the posterior cul-de-sac was the best treatment of simple or suppurating hæmatocoele. Reynier and Terrier, however, would limit vaginal incision to septic cases, performing laparotomy in all recent ones, which allows the operator to see what he is doing, and to remove diseased appendages, if necessary.—*La. Sem. Med.—New Eng. Med. Monthly.*

BIOLOGIC DIFFERENCES BETWEEN THE BACILLUS OF EBERTH AND THE BACILLUS COLI.—At the meeting of the Hospital Medical Society held on March 19th, M. J. Toinot and M. Georges Brouardel said that there were very marked differential characteristics shown by cultures of these two microorganisms in peptonized bouillon containing some arsenious acid. The bacillus of Eberth exhibits no growth in bouillons containing more than a centigram of arsenious acid to the liter. It is equally impossible to train this organism, even if the observer begins with bouillons much more feebly arsenical and goes on by slow degrees to those more strongly arsenical, to grow in a bouillon which is of a higher arsenical strength than one centigram in the liter. The bacillus coli, on the other hand, from the very first, from whatever source it may be derived, grows well in bouillon containing 1.5 gram of arsenious acid per liter. Certain samples will even grow from the very first in bouillons containing 1.75 or even 2 grams of arsenious acid to the liter, and this appears to show that this bacillus exists of various kinds, as opposed to the one kind of the bacillus of Eberth. The bacillus coil is, on the other hand, remarkable for the ease with which it can be trained to grow in an arsenious environment. It is possible by beginning with a bouillon of the arsenical strength of 1.5 grams to the liter to gradually get it to grow in a medium containing arsenic to the strength of 3 grams to the liter. Between an organism of this kind, which is so resistant to an enormous dose of arsenic, and the bacillus of Eberth, which is incapable of developing in the presence of the very small proportion of 1 centigram of arsenic to the liter,

there is undoubtedly a remarkable biologic difference which may be added to those already noticed, such as the indol-reaction and the lactose fermentation-test, and which stands on the same footing. The same biologic reaction in the presence of arsenious acid offers a method of differentiation from the group of the paracolon-bacillus.—*British Medical Journal.*

AN ERRONEOUS CHARGE OF IMPROPER ADVERTISING.—The M. J. Breitenbach Company, of New York, has issued a circular saying that it has been intimated that maliciously disposed dealers, when interviewing the medical profession, have stated that Gude's pepto-mangan is placarded on walls, fences, etc. The intention of such an assertion, says the circular, is evident, and the statement is false in every particular.

There is a sign advertising company in this city whose line of work is in that direction. Being of the same name, Gude, they place their name in bold letters, and a passing glance might create the impression that Gude's pepto-mangan was being so advertised. This is positively not so.

The circular concludes as follows: "We have been before the medical profession of this country for upward of seven years, and have endeavored to conduct our business in the highest ethical manner. The following clause in our contract with Dr. A. Gude & Co., chemists, Leipsic, covers the ground thoroughly:

"Section 9.—And it is further agreed between Dr. A. Gude & Co., party of the first part, and the M. J. Breitenbach Co., party of the second part, that if at any time the said M. J. Breitenbach Company should by device or by advertising attempt to increase their business in Gude's pepto-mangan *other than* through the recognized channels of the medical profession, then in such event this contract is to become null and void and all rights of the M. J. Breitenbach Company existing under this instrument immediately become the property of said Dr. A. Gude & Co. *without recourse to law.*"—*New York Medical Journal.*

AN EFFICIENT FORMALIN STERILIZER.—This sterilizer is expressly made for use with Schering's formalin disinfecting

lamp, formaldehyde gas being produced by the vaporization of pastils. It is constructed of tin and japanned on the outside; it is sufficiently airtight when closed to prevent the escape of the disinfectant vapors. The cabinet is 18 inches wide, $11\frac{1}{2}$ inches high and 8 inches deep; hence its cubic contents of air is 1,656 inches, i. e., a little less than 1 cubic foot. The interior, besides the compartment designed for the lamp, is divided into three sections by shelves of wire netting, which allow the gas to reach to all parts of the instruments placed upon them. The instruments, dressings, etc., that are to be sterilized, are placed upon the shelves. After the requisite paraform pastil of $\frac{1}{8}$ gram (5 grains) has been put into the lower receptacle, (the upper cup is not used with the sterilizer), the lamp is set in its compartment and lit. The sterilizer is then closed. A small square of glass is inserted into the door to permit the flame of the lamp to be seen. The outlet on the top of the sterilizer will facilitate the escape of the gas when the process is complete. The lamp will burn about twenty minutes in the air of the sterilizer, if empty, and only some five minutes are required for the entire vaporization of one paraform pastil of 5 grains, placed in the lower cup. This apparatus will be found of general value for the rapid and thorough sterilization of instruments, suture and bandage materials, soft rubber catheters, etc.—*International Journal of Surgery.*

“FACTA NON VERBA.”—One salient feature of this paper which has not been brought out as prominently as it might have been, on which I wish to lay particular emphasis, is that whether it be a proprietary remedy or not, matters not provided it cures our patients. It is our business to cure our patients, it matters not by what means. But the point is this, that it is my opinion, based upon observations in these cases, that we have not paid sufficient attention to the organic salts of iron; in other words, that the other preparations of iron do not produce the results that these organic preparations achieve. For years the combination of iron and manganese I have used in daily practice. I have used a great many of these preparations and the great point has been to obtain one which is assimilable, that is elegant, and

that will not produce anorexia and other gastric disturbances. Now with the organic salts of iron we have had startling results, and I intend to use them as long as they benefit my patients. I do not wish to be understood by the neurologists and others present as saying that this is a proper remedy for all cases of neurasthenia, but I do maintain that it is a remedy well suited to those neurasthenic and anæmic cases described, especially in women suffering with menstrual irregularities, especially those accompanied by hemorrhage. I simply want the gentlemen to judge by the results. "Facts speak louder than words."

—*Jerome K. Bauduy, M.D., in Medical Review.*

[The preparation alluded to in this very excellent paper is *Pepto Mangan, Gude.—Ed. S. P.*]

MALNUTRITION.—The importance of a pharmaceutical preparation which will do substantial service in this connection is freely admitted.

Malnutrition and stomachic derangements are the prime cause of so many disorders, that these conditions have become a matter of serious interest to the general practitioner.

The positive aid and results obtainable from "Gray's Glycine 'Tonic Comp.'" are largely due to its finished and inalterable character as a reconstructive Tonic. It undergoes no organic or chemical change and the harmonious action of each ingredient is assured, an important and unusual feature, and essential to accomplish the results desired.

It neutralizes stomachic acidity, checks fermentation, promotes appetite, increases assimilation and does not constipate. It is prompt and reliable in its action and does not over stimulate or produce stomachic congestion, a common fault of many so-called tonics. It is also most pleasant to the taste and acceptable alike to all ages and to sensitive persons, and causes no unpleasant reaction whatever.—*Annals of Surgery.*

SYPHILIS.—When a patient presents himself for treatment, he should be placed upon the following recipe (which fully meets

all indications) until the symptoms disappear, his appetite is improved, and a general feeling of vigor and activity exists:

- | | |
|--|-----------|
| R. Hydrarg. Bi-chlor..... | 2 grains. |
| Iodia | 6 ounces. |
| M. Sig.—One teaspoonful after each meal. | |

Iodia is prepared by Battle & Co., St. Louis, and contains extracts from the green roots of stillingia, helonia, saxifraga and menispernum. Each fluid drachm also contains five grains iod. potass. and three grains phosphate of iron. The tendency of the profession is too much towards discarding everything but mercury. I have often seen mercury alone, or combined with iod. potass., fail to heal secondary ulcerations, which speedily disappear when combined with vegetable alteratives. It is, therefore, best to have the good effects of the only three reliable remedies at once, viz., mercury, iodide and vegetable alteratives (which is obtained in the above prescription.)—*Lectures on Venereal Diseases, by W. F. Glenn, M.D., Clinical Professor of Genito-Urinary and Venereal Diseases, Medical Department Vanderbilt University.*

THE TREATMENT OF TAPEWORM.—The *Gazette hebdomadaire de medecine et de chirurgie* for March 6th credits the following to E. Chamberlin:

R. Alcohol containing ten per cent. of chloroform... 8 parts;
 Rectified oil of turpentine, } each..... 4 "
 Ethereal extract of male fern, } each..... 4 "
 Glycerin..... 15 "
 M. Half a tablespoonful to be taken every hour. Before beginning the use of this mixture the patient should take castor oil or magnesium sulphate, and as soon as a purgative effect is produced the mixture may be taken. For very young subjects, for example, children two years old, the formula may be modified as follows:

R. Alcohol containing ten per cent. of chloroform, } each.. 2 parts;
 Rectified oil of turpentine, } each.. 2 parts;
 Extract of male fern, } each.. 2 parts;
 Glycerin 15 "
 M. S.: A teaspoonful every hour.

A NOTE in the *Fort Wayne Medical Journal* for January sug-

gests the use of vinegar to soften plaster-of-Paris splints so that they can be cut easily with a knife or with scissors. Another excellent method, it says, is to use a strong solution of bichloride of mercury, simply moistening the splint along the line to be cut. Either vinegar or sugar will quickly remove the plaster from the hands.—*New York Medical Journal.*

Editorial.

ANNUAL MEETING OF THE TENNESSEE STATE MEDICAL SOCIETY.

The Sixty-fifth regular session of this grand, illustrious and representative organization, that, being one of its humblest members I can honestly say is and has ever been composed of the best medical men of the Volunteer State, was held according to previous announcement in the city of Jackson on the 12th, 13th and 14th of April. It has been my custom for nineteen consecutive years, from which I do not like to depart, to give a full report of the annual meeting in three pages in the issue of the month following the meeting. This year, owing to the pressure of other "live matter" on my space I make the first failure, and will give only a brief running commentary of these most happy and pleasant days of an eventful life, made most agreeably so by the many courtesies received at the hands of the citizens of Jackson, the Committee of Arrangements of the Society, the doctors of West Tennessee, and many old and young friends, members of an organization that has given me great honor by permitting my name to be enrolled in its membership.

Being one of the first members outside of Jackson to reach this beautiful city, I was much gratified to find the next arrival on the field of action was its courteous and most efficient President—an old friend indeed, and one I have ever found true to the best principles of honorable medicine during an acquaintanceship of many years—if I were to state "how many" it might make us seem to be "back numbers," which I can most sincerely testify he is not, but as full of ardor, enthusiasm and correct admiration of the science he so well and ably adorns, as the most enthusiastic novitiate on whose parchment authority to follow in the footsteps of his Divine master and his beloved disciple Luke, the ink is hardly dry.

With this preface, with a partial promise, which may not be fulfilled, owing to the startling and stirring times now upon us, in a subsequent issue to give my kind and indulgent readers, a full and official report of a most happy and enjoyable trio of days of a flow of reason and wit,

illumining the grand records of science—so notably portrayed in the annals of the Tennessee State Medical Society, I will proceed with my “song and story.”

The first day's session was promptly called to order by the acting chairman of the Committee of Arrangements (in deference to his father—the handsome and talented “boy” Doctor, taking this arduous labor off the duty-worn shoulders of his able parent), Jere L. Crook, M.D., who throughout the whole meeting showed himself to be a “most worthy son of a most honorable sire.” He introduced the Rev. Dr. Sullivan, pastor of the Methodist Church, who in a most eloquent and appropriate prayer, asked the Divine blessing on the meeting. The older members of the society spoke frequently in private conversation of its timely and suitable character and the full and melodious voice in which it was uttered. Dr. Jere Crook then made the usual announcements of the Committee of Arrangements and turned the gavel over to Dr. Powell, the President of the Society.

The first resolution offered was one by myself, which was unanimously adopted, it being one of condolence and sympathy to an absent member, at that hour undergoing a most trying ordeal in the city of “Brotherly Love” at the hands of the “Keenest” surgeon of the day.

Following this, the usual business procedures were gone through with—such as signing the constitution, paying dues, and receiving new members, etc., when the reading of papers was commenced, according to program.

Of the papers read, I can say, after twenty-three years membership in this society, few meetings having been missed, while I have heard more and longer papers read, I have never yet heard such a class of papers in any meeting. Live, fresh and original was everything submitted, and the discussions following will long be remembered as a most pleasing, refreshing, entertaining and instructive oasis in my life. Time and space will not permit me to give at this time anything like a detailed report—I hope that will yet be seen in these pages—at any event the regular volume of transactions, I know, will do full justice.

The sessions were held in the hall of Pythian Temple, and were as follows: Morning, afternoon and evening of Tuesday and Wednesday, and morning and afternoon of Thursday. The evening session of Tuesday was devoted to the address of welcome on the part of the citizens of Jackson, delivered as only he could, by the eloquent and gifted orator, Dr. Charles H. Strickland, now pastor of the First Baptist Church of Jackson, previously occupying a similar pulpit in Sioux City, and in Nashville. This was followed by a brief response by the editor of this journal, and then came the annual address of the President, Dr. T. K. Powell, of Dancyville. The title of his address “The Relation of Public Morals to Public Health,” was such as to prevent the attendance of the fairer sex: dealing with such matters of a private nature as the social evil and other kindred topics not suitable to a mixed assemblage in our glorious Southland—where our ladies are noted no less for their beauty, in-

telligence, grace and virtue than their modesty; it was enjoyed and appreciated by an audience of "men only," made up of the doctors in attendance, together with a large assemblage of the best (male) citizens of the capital of West Tennessee. The address will speak for itself and needs no commendation at my hands, knowing full well that it will be appreciated by all who may have the opportunity of reading it, as it was by those who showed their sincere appreciation at hearing it, as evinced by their intense interest during its delivery and their favorable comments afterwards.

Wednesday evening the society was tendered a reception in the Pythian Hall by the Chamber of Commerce of Jackson, which being graced by the elite of the city both male and female—the highest type of God's creation being found here, was an event long to be remembered by the members of the society who were so fortunate as to be present.

The afternoon drive around the city in the handsome equipages, both private and livery, participated in by the members of the society, in each vehicle being one prominent and well informed citizen of Jackson to point out to the visiting doctors the many points of both local and historic incident, was a most enjoyable recreation. After seeing the many points of interest, the homes of private citizens, homes of historic interest, magnificent churches, public and private schools, well kept streets, the most important of all was the visit to the water works of the city. While other features deserve most favorable comment, this demands a brief trespass on my space. By a system of artesian or driven wells, this city, through the power supplied by the latest and best devised system of pumping apparatus enjoys a most enviable water supply. Abundant in quantity—cheap enough for the most indigent, and so pure, that a sample sent to a distant chemist of national reputation for thorough analysis, received from him this peculiar comment: "Well, I have had many a request for a thorough chemical analysis, but this is the first time that I have ever been asked to analyze *distilled water*." And yet this sample was taken from an ordinary hydrant faucet in the most unhealthy locality of Jackson—supposing that the city has an unhealthy spot. The pumps afford pressure sufficient to preclude the necessity of fire engines, and all that is needed is simply a fire department to manage the hose reels. While on the fourth floor of the Pythian Temple, being a "water drinker" I frequently turned the hydrant tap on that floor, and it required a cautious turn of the valve to prevent the limpid fluid from splashing all over me, so great was the pressure at the top of the highest building in the city. This water has such a crystal clearness, that when a porcelain lined bath tub was prepared for my daily ablutions adjoining my room "No. 23 at the Armour," that I could not realize that the necessary fluid was present until my bared feet and limbs were refreshed and cheered by its grateful coolness—its temperature being the same I was assured the year round. I may have made an unusual allowance of space to the water supply of Jackson—but its merits simply demand it, being the best I have ever yet seen,

We have had this much to say in regard to water because it is the essential part not only of man, but of his class and kind of animal vertebrates, even the camel, who including "Holy Moses" and "Lilian Russell" of Centennial fame can do so long without it; but two other reasons stare me in the face—one is a question propounded at a recent meeting of the Tennessee State Board of Medical Examiners, its answer, and the grading accompanying the same—The question was: "What is the most important food of man? The answer—water. The grading 0 0. The Examining Board certainly did not know as much as the young graduate. (Now, this may be questioned—yet I have simply stated a fact.) The other reason is, that a municipality that does not furnish an ample supply of pure, wholesome water to its inhabitants is sadly negligent in its duties and is more interested in ward politics than its duty as public servants—e. g.—the epidemic of typhoid fever in Philadelphia, which speaks words—yes, sentences, aye, volumes in behalf of powers that be in this city of the benighted west which is so far in advance; and my own native city, yes, your and my capital city of Tennessee which affords its citizens a once pure supply of water, by which man was regenerated, but alas polluted by the surface drainage of many acres of gradually disintegrating soil with all its surface and subterranean contaminations. The capital city of West Tennessee is fully up with ancient Rome and its magnificent aqueducts which are yet as much a marvel of this latter day civilization as are the pyramids, the sphynx, or the majestic head of Cheops, which yet stands the admired of all admiring ages of centuries past and to come. The capital city of West Tennessee keeps up with the advances of the age, and holds fast to that which is good. As Moses of old struck the rock with his staff that the people might live—so the authorities of this majestic little city—majestic in her queenly powers to turn away devastating epidemics, as evinced by *History* and recorded facts of two decades ago, when all West Tennessee was submerged in a malignant maelstrom of destruction and death, was kept pure—yes as pure as her now crystal streams of life giving water, so necessary, as the most important food of man; yes, as she with her rod of science struck the bosom of mother earth, and so pierced it with her rods of skill that she stands to-day to be envied in the cities of the land, whether a gorgeous European capital, or progressive American metropolis, or a mongrel population such as we find crowded in the cities under the growing rule of the great Bear of Russia, the principalities of ancient Rome now under more modern sway, imperial Germany, or even distant Cathay. *Verbum sufficit.*

To its magnificent water supply is found added for the convenience of its citizens, gas, electricity with its most approved facilities, police, and charity for the poor within its bounds.

Yes, in my peregrinations, I found my way more than once to as well an appointed hospital for rich and poor, so clean, so neat, and so perfect in its arrangements that the veriest disciple of asepsis or antisepsis could only look and admire—not only admire, but say in words that in their repetition, I hope that I may not be considered sacriligious when I repeat "Well done thou good and faithful servant."

And now a few words as to the personelle of the meeting. In looking over the large attendance through the three days, I can at this time only call to mind those that impressed with their work and deeds. First there was Crook—father and son, and the rest of the Committee of Arrangements, J. T. Jones, an "old Reb," and Herron—their courtesies, their kindness can never be forgotten. Then there was the "Old Guard," headed by Cowan, the old war horse of Tullahoma, who has so often electrified the State society as well as other audiences, by his grandiloquent eloquence; Nowlin, of Shelbyville; Cain, of Nashville—whom it is always "dangerous to raise" even in this day of "Cuba Libre;" Clary, of Bellbuckle; Murfree, of the charming little city once the capital of this State to which city his ancestors gave name; McSwain, of Paris; our President, Powell, whom only to know is to love; and the younger members such as Sebastian, Porter, and Rochelle, of West Tennessee, and such men as Savage, once an integral factor of Jackson ideas and Jacksonian success, Bilbro, Douglas, Wither-spoon, Sullivan, Altman, Macon, Graddy and others of the middle division of the State; Miller, Gallion, who succeeds the former Vice President from East Tennessee, and our most excellent, most faithful watch-dog of the Treasury—one of the most efficient officers the State society has ever had, and who was envied by this "old Benedictine" by the marked attention he received from the hands and eyes of Jacksonian beauty and purity—how could he keep away from their lips?—may be he will get there some day, old Bach as he is—I wish him no better luck—for when excellence and integrity meets purity and beauty, surely they are not incompatible. Yes, these are a few who impressed me by their presence and their work, yet I must not leave out the stately Maury, the gifted Krauss and the handsome Jelks of the Bluff City—Why was Memphis sulking in her tent? Surely with the honors given to her doctors by the State Society, they should have put in a more numerous attendance—a better could not have been sent. But that Montgomery Park lay between Jackson and Memphis is a rational reason why one of its ex-Presidents could not "get away"—but there are others in this city on the Chickasaw Bluffs that I would have been most pleased to have met and was greatly disappointed at not doing so. Another regret that I cannot at this time well leave out of imperishable printers' ink, is that the representative journal of West Tennessee, the *Memphis Medical Monthly*, whose great editor, now dead, was honored by the presidency of this society, and whose bones must have wrestled and struggled in his honored grave when the April number of the journal which he did so much to upbuild had not a line in notice of this ever to be memorable meeting. Neely, who at one time had connection with that journal honored me with his "glad hand." But McKinney, I await your reply in behalf of yourself and your associates.

And now in conclusion, I must ask the privilege of paying a just tribute to the excellent young Secretary of the society—Will Haggard is certainly making a name for himself—outside of the

influence of a most erudite and experienced father; he is now known throughout the State as one of the most progressive surgeons of his day. Handsome, well we will let the fair dames of Jackson and their daughters answer that question; active, energetic, quick, ready, a most fluent speaker and a most efficient Secretary of the State Society. To him, and his associate, Dr. George Malsbary, of Cincinnati, who is the official stenographer of the Tennessee State Medical Society, I know the members will be under many and lasting obligations for the 65th annual meeting and its proceedings.

At the regular time, the afternoon of the 2d day, Wednesday, April 13th, the following officers were elected: President, T. H. Marable, of Clarksville; First Vice President, W. C. Bilbro, of Murfreesboro; Second Vice President; T. C. Gallion, of Dandridge; Third Vice President, V. A. Biggs, of Ralston. As a matter of course Drs. Haggard and Nelson were re-elected to the positions of Secretary and Treasurer.

THE THIRD ANNUAL MEETING of the *Western Ophthalmologic and Otolaryngologic Association* was held in Chicago, April 7th and 8th, 1898. The address of welcome was made by Dr. F. Henrotin, President of the Chicago Medical Society, who, in a felicitous speech, extended to the members the hospitalities of the City of Chicago. Dr. A. Alt, of St. Louis, Mo., responded for the association. The annual address was then read by the President, Dr. B. E. Fryer, of Kansas City, Mo. After the usual routine business had been concluded, a scientific communication was then read by Dr. Herman Knapp, of New York City.

The Ophthalmologic and Otolaryngologic sections each held five separate and two joint sessions, many articles of interest being read and discussed. The last joint session was occupied with the exhibition of clinical cases.

The Committee of Arrangements, of which Dr. J. B. Colburn, of Chicago, was Chairman, was unremitting in its attention to the guests, and nothing was spared that would contribute to the entertainment of the visitors. Thursday evening the members were invited to the hall of the Chicago Athletic Club, where a special program had been arranged for the entertainment of the members.

The following officers were elected for the ensuing year: President, Dr. J. Elliott Colburn, of Chicago; First Vice President, Dr. W. Scheppegrull, of New Orleans; Second Vice President, Dr. Casey A. Wood, of Chicago; Third Vice President, Dr. H. Gifford, of Omaha, Neb.; Treasurer, Dr. W. L. Dayton, of Lincoln, Neb.; Secretary, Dr. F. Rumbold, of St. Louis, Mo.

New Orleans was unanimously selected for the next meeting, which will take place just before the Mardi Gras of 1899, thus allowing the members to conclude their scientific session with the gaieties of the carnival season. A "Hot time in the old town" may be on hand at that period of next year. Somebody may have to "walk Spanish."

ON TO DENVER—"THE A. M. A."

Notwithstanding "wars' dread alarm" and the resonance of the "spirit stirring drum and the ear piercing fife" together with the tread of marshaled hosts throughout the land, awakening echoes that ceased to reverberate one-third of a century ago, the many attractions offered by the "mighty West" with her grand plains, majestic mountains and wonderful canyons, at this writing from taking a careful survey of the whole ground, we have every reason to expect an unusual attendance in the grand capital of Colorado, "so far away and yet so near" on the occasion of the 51st regular meeting of the representative medical organization of America, June 7th, 8th, 9th and 10th. In this day of rapid transit, what was but a generation ago considered a more arduous pilgrimage than a trip to the Klondike, is now a brief, pleasant and most entrancing run of but little over 48 hours, at the end of which the only tax upon physical and vital forces will be the delightful but temporary fatigue of eye and mind by the many objects of more than passing interest en route.

The Committee of Arrangements announces that preparations for the coming meeting are well advanced. A large number of prominent men have signified their intention to be present and read papers, and an excellent scientific program is assured. The indications all point to a large and successful meeting.

Convenient and ample accommodations have been secured for the general sessions, section work, registration and exhibits.

The entertainment of members and their families is being planned on an elaborate scale and the committee promises all who may come a most enjoyable time.

The Western Passenger Association has granted a rate to Denver and return of one-half fare, plus two dollars, thirty-day limit, for business from Chicago, St. Louis and intermediate points. Tickets on sale June 2, 4 and 5, east of the Missouri River; June 5 and 6, west of the Missouri River. Application for similar rates has now been made to all other passenger associations and railroads not controlled by them.

From a communication signed by some of the most reputable and representative medical men of Denver in a recent number of the *Pennsylvania Medical Journal* we make the following extracts:

"It is the desire of the physicians of Colorado that the coming meeting shall be attended by a larger number of doctors than have ever before been present at any annual meeting. We want every doctor who is honored by appointment by his local society to come; we want every man who has ever been in attendance upon any previous meeting to be sure and attend the Denver meeting; we want every man who comes to bring his wife with him, if he has a wife; and if he has none now, the opportunity will be a fitting one to get a wife and bring her along to Denver on a wedding tour.

You ought to come to the Denver meeting in order that you may combine professional advancement with a trip that is a real sight-seeing and vacation trip; we want you to come and have ever afterward the

recollection of having been present at the largest and best meeting of the American Medical Association that has yet been held; you ought to come in order that you may meet men from all sections of the country, and thus broaden your views of America, of American citizenship and of American attainments in medicine. You ought to come in order that you may meet again those professional friends of other days, who left their old homes in order to regain health and strength in the most wonderful climate in the world; you ought to come in order to meet many of your former patients, who would have been dead ere this had they remained in a less favored climate; you ought to come in order to learn for yourselves what kind of a climate can be found on the eastern slopes of the Rockies and who may profit thereby.

We want you all to come and see that our State is as civilized as any in the Union, that Denver is as cosmopolitan a city as New York itself.

When one rides out to our suburbs on any of the many electric lines, the great snowy range rises to view on the western horizon, and you will have a view of one hundred and fifty miles of mountains, from Pike's Peak on the south to Long's Peak on the north, with Gray, Evans, Everett and a dozen others, all over fourteen thousand feet high, all in view at once, all snow-capped in midsummer.

When you are in Denver you will be one mile above sea level, with nothing to remind you of the unusual elevation except the dryness and clearness of the atmosphere and a sense of exhilaration that renders every breath a delight and every act a pleasure.

Denver covers fifty square miles, and has more than 160,000 inhabitants; but it is an easy city to become acquainted with, and the stranger is not readily lost; true western courtesy and interest will be found to animate all its citizens, and the stranger may go about and see everything or learn everything without a guide being necessary. For these reasons, as well as for the social entertainments that will be provided, the wives of visiting delegates will enjoy the Denver meeting.

Eastern friends who have never seen mountains more than a thousand feet high, come and see whole ranges of them covered with snow in midsummer. You who have had your dreams of seeing the Alps some day, but have found the dream ever receding as the years have sped by, come to the Denver meeting in June, 1898, and see the American Alps; they are just as grand and as impressive as the Swiss Alps, and they are yours and ours—the common birthright of every American citizen.

Don't be afraid that in coming to Denver you will have any trouble in securing accommodations for yourself and your family. There are more large, first-class hotels in Denver than in any other city of its population in the world; their rates are low, and will not be advanced in order to gouge visitors. Denver is bigger than Atlanta or Newport or Louisville, where the association has met in recent years. We have entertained the triennial conclave of Knights Templars, and hundreds of other conventions, within the last five years; they all found plentiful and satisfactory accommodations, and the delegates went forth over the whole land singing the praise of Denver as a convention city.

The meeting places for the general sessions and for the sections will all be most commodious and located within an area of a few blocks in the heart of the city, and all not more than ten blocks from the union station.

Make up your mind to come to Denver, and after the meeting is over to see Colorado Springs, ascend Pike's Peak, visit the Garden of the Gods, and then see closely the wonders of the Rocky Mountain region.

We want to emphasize all these things. But we don't forget that the association is essentially a scientific body, brought together in annual session for serious, scientific work. It is our purpose to have every leader of American medicine present at this meeting. We want you all to see and hear and meet them; Senn and Keen, Marcy and McBurney, White and Park, Murphy and Osler and the hundreds of others that are known to you by their writings; we want you to meet them personally and get to know and like each other socially as you have known each other by reputation."

This warm, hearty, and sincere invitation of our brethren in Denver, is so far in advance of anything that we could offer, and should prove far more attractive, that we are gratified indeed to submit it to our readers.

The following is a list of delegates appointed at the last meeting of the Tennessee State Medical Society, and although some will be prevented by the inexorable duties of an exacting profession from making use of this opportunity of a life time, we hope sincerely to meet many of our confreres of the Volunteer State while there:

Drs. Richard Douglas, J. S. Cain, W. D. Haggard, Sr., W. D. Haggard, Jr., G. H. Price, D. Eve, G. C. Savage, L. B. Graddy, C. R. Atchison, C. S. Briggs, T. K. Powell, M. M. Smith, W. C. Bilbro, V. A. Biggs, J. A. and J. L. Crook, I. A. McSwain, J. C. Paris, E. A. Neely, J. B. Cowan, J. L. Hutchinson, J. T. Altman, J. A. Richardson, C. C. Sullivan, G. B. Thornton, S. R. Miller, J. B. Williams, A. L. Macon, H. J. Miller, R. B. Maury, E. W. Riding, R. J. McFall, M. W. Ellis, W. B. Rodgers, D. D. Saunders, E. C. Ellett, W. F. Clary, G. B. Gillespie, W. K. Sheddan, T. J. Happel, J. T. Jones, J. T. Herron, D. E. Nelson, Wm. Krauss, L. A. Yarbrough, T. W. Gallion, J. A. Harris, F. J. Runyon, J. M. Clack, and the editor of this journal.

MEDICAL EXCURSION IN JUNE—*Denver to Salt Lake*—The Medical Excursion in June will leave Denver for Salt Lake City—the Zion of the new world—on the last day of the meeting and the two successive days via the Rio Grande Western Railway in connection with the Denver & Rio Grande and Colorado Midland lines. The rate will be but \$18.00 for round trip, offering a trip of 1,500 miles through the Rocky and Wasatch Mountains. No European trip of equal length can compare with it in grandeur or wealth of novel interest. Salt Lake City and vicinity is one grand sanitarium. The Great Salt Lake or Dead Sea of America with its magnificent bathing resort, the Hot and Warm Springs, drives, parks, canyons and reserves are all located in or about the city. Send 2 cents to F. A. Wadleigh, Salt Lake City, for copy of pamphlet.

A GOOD COMBINATION.—One evening I was called to attend a gentleman, a member of my own family, who had just returned from a trip during which he had contracted a well developed case of catarrhal fever as the result of a severe cold. His pulse was 120°, temperature 102 2-10°, skin hot and dry, pain all over the body and a splitting headache; all the mucous tissues were inflamed, involving the nasal tract, throat and bronchial tubes; the eyes were watery, the nose was running, throat sore, in fact his whole system was thoroughly congested.

It was very important that he should be able to travel within a day or two. I ordered him to take a hot foot bath, then drink a hot lemonade and go to bed. I left with him six Tongaline and Quinine Tablets with instructions to take one every half hour, washing it down with plenty of hot water.

I saw him about 7 o'clock the next morning and received the following report: About one hour after going to bed he commenced perspiring freely and began to experience a feeling of drowsiness, so that before he had taken all of the Tongaline and Quinine Tablets he fell into a refreshing sleep, from which he did not awake until 5 o'clock. I found his pulse was normal, temperature 99°, skin moist, the pain entirely gone and all the unfavorable symptoms decidedly improved; in fact the trouble was entirely under control. I prescribed a mild cathartic and by the following day he was able to go on his way rejoicing.

Since then I have frequently given Tongaline and Quinine Tablets in similar conditions with marked success in each instance."

FRANK A. BARBEE, M.D., Chicago.

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

DR. JNO. P. GRAY was most fortunate in hitting upon a most valuable combination as a true cerebral tonic. In his large experience as a neurologist and psychiatrist, having tried time and again to formulate a correct tonic he settled down upon what is known as "Gray's Glycerin Tonic Compound." In a consultation case with the eminent and talented Dr. Jno. H. Callender, he called my attention to Dr. Gray's formula, and which I have used with the very greatest degree of satisfaction. The preparation is now manufactured by The Purdue Frederick Co., of New York, and for purity and excellence it cannot be surpassed. It is a combination of ac. phosphoric, vin. ikeratii, gentian, taraxacum and carminatives with glycerine. It neutralizes acidity of the stomach and checks fermentation; promotes appetite, increases assimilation, does not constipate; and is indicated in phthisis, bronchitis, anæmia, malnutrition, melancholia, nervous prostration, catarrhal conditions and general malaise.

KRYOFINE IN INFLUENZA.—A new coal-tar product effective in small doses and safe. In an article with this title, Dr. Brealer, Chief Physician to Prov. Heil und Pflege Anstalt, Freidburg, remarks :

"The influence of Kryofine is one opposed to the production of fever; it not only acts to reduce a certain temperature, but also decidedly prevents a further rise in temperature when given at the time of day this usually occurs. The subjective symptoms were ameliorated by Kryofine."

Prof. Eichhorst, Director of Medical Clinic, University of Zurich, says:

"In a man with alcoholic polyneuritis, for whose intense pain sodium salicylate, phenacetin, antipyrin and exalgin had been prescribed without any effect, by means of Kryofine alone a very prolonged relief from pain was effected. The drug was prescribed, 7½ grains, three times a day."

Dr. Banga, Professor of Gynecology, Chicago Polyclinic, states:

"For the last three or four months I have given Kryofine in all cases of neuralgia, where formerly I used to prescribe phenacetin, antikamnia, etc. The results obtained with the Kryofine were excellent, and in no case did I notice any disagreeable symptoms, so that I consider it the best analgesic so far known to me."

Send for samples and clinical reports to C. Bischoff & Co., New York.

THE PROPER TREATMENT OF HEADACHES.—J. Stewart Norwell, M. B., C. M., B. Sc., House Surgeon in Royal Infirmary, Edinburg, Scotland, in an original article written especially for *Medical Reprints*, London, Eng., reports a number of cases of headache successfully treated, and terminates his article in the following language:

"One could multiply similar cases, but these will suffice to illustrate the effects of antikamnia in the treatment of various headaches, and to warrant the following conclusions I have reached with regard to its use, viz.:—

- (a) It is a specific for almost every kind of headache.
 - (b) It acts with wonderful rapidity.
 - (c) The dosage is small.
 - (d) The dangerous after-effects so commonly attendant on the use of many other analgesics are entirely absent.
 - (e) It can therefore be safely put into the hands of patients for use without personal supervision.
 - (f) It can be very easily taken, being practically tasteless."
-

A RELIABLE FOOD.—Imperial Granum has won the confidence of physicians because many years of clinical experience have proved it to be a form of nourishment that is acceptable to the palate and to the most delicate digestion at all periods of life.

It is successful, not only as an aliment for children, but its rare nutritive excellence in inanition due to mal-assimilation, chronic, gastric and enteric diseases, has been uncontestedly proven; often in instances of consultation over patients whose digestive organs were reduced to such a low and sensitive condition that the Imperial Granum was the only nourishment the stomach would tolerate, when life seemed depending on its retention.

THE PHYSICIAN OF TO-DAY looks with suspicion or skepticism on the flood of proprietary preparations offered "to the medical profession only" but which really are intended to catch the public eye.

There are, however, reputable wholesale drug firms who command respect and patronage of the medical profession by their reliable Galenical preparations. Their long experience in the business and the facilities at their command enable them to put up reliable and palatable mixtures which extemporaneous pharmacy is unable to do. One of these reliable houses is that of Wm. R. Warner & Co., of Philadelphia, Pa. A representative of this house called last week, leaving samples of their beautiful preparations—gems in pharmaceutical art, and which we know from many and repeated trials are true to therapeutical science. Of the best, theirs are the very best.

SCHERING's FORMALIN LAMP is one of the best, most efficacious and convenient means of disinfecting rooms and apartments, large or small that we have yet seen, affording as well a ready means of disinfecting bedding, clothing and other substances. Simple in construction, not expensive, and the pastiles used quite cheap. The formaldehyde vapors arise or are given off in a superheated state, in real gaseous form, penetrating every nook, cranny and crevice above, around and below. They need only to be seen to be appreciated.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain however. Robinson's Wine Coca we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful assay.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plains, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, sole agents.

Reviews and Book Notices.

A TEXT-BOOK ON SURGERY, General, Operative and Mechanical, by JNO. A. WYETH, M.D., Professor of General and Genito-Urinary Surgery in the New York Polyclinic; Visiting Surgeon to Mount Sinai Hospital, etc. Third edition, revised and enlarged. Royal 8 vo., pp. 997, with 938 illustrations. Sold by subscription. Cloth, \$7; Sheep, \$8.00; half morocco, \$8.50. D. APPLETON & CO., New York.

The first and second editions of Prof. Wyeth's Text-Book were most favorably received and highly appreciated by practitioners, teachers and students; and the third edition to which he has devoted the best efforts of his life, will be found not only a revision, but practically a re-written volume. While much that was new has been added by careful elimination of matter which could with least disadvantage be left out, the work has not been unnecessarily increased in size.

From the preface to this edition we quote as follows :

" It has been the author's aim to retain three features of the original work which made it available to the busy practitioner for quick and ready reference, and to add to this edition some elementary pages which may commend it to teachers for their undergraduate pupils. With this end in view the matter has in great part been re-arranged."

The introductory section is devoted to surgical pathology, sub-divided into six chapters. These chapters treat of inflammation and the process of repair in the various tissues of the body, and the differences in repair in a tissue affected with simple or non-infective and infective (or suppurative) inflammation. Specific and non-specific urethritis, erysipelas, actinomycosis, glanders, tetanus, malignant œdema, hydrophobia, tuberculosis, syphilis, leprosy, diphtheria, and typhoid infection are also embraced in this portion of the work.

Chapters VII and VIII are devoted to surgical dressings, sterilization, asepsis and antisepsis, and anaesthesia.

In Chapters IX and X are given hæmorrhage, wounds, burns, skin grafting, frost bite, furuncle, carbuncle, ulcers and gangrene. Bandaging is given in Chapter XI, and Chapter XII is devoted entirely to amputations.

Chapters XIII, XIV and XV deal with lymphatic vessels and glands, veins, arteries, aneurism and ligation of the vessels.

In Chapters XVI and XVII are given the lesions of the bones and joints, and the various operative measures for their correction.

The Chapters XVIII to XXIX inclusive are devoted to regional surgery, and in that portion of this section in which the abdomen is considered, many important changes have been made and much new matter added. Chapter XXX takes up deformities and their correction, while the final chapter (XXXI) is devoted to the subject of tumors.

The handsome volume is dedicated to the late J. Marion Sims, and the letter press, large clear type, good paper and excellent binding are quite in keeping with the excellent subject matter.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. A Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, Drawn from Journals, Monographs, and Text Books, of the leading American and Foreign Authors and Investigators. Collected and Arranged by Eminent American Specialists and Teachers. Under the Editorial Charge of GEORGE M. GOULD, M.D. In one Imperial Octavo Volume of 1077 pages, uniform in size with the "American Text Book" series. Profusely illustrated. Prices: Cloth, \$6.50 net; half morocco, \$7.50 net. W. B. SAUNDERS, 925 Walnut St., Philadelphia. 1898.

In the American Year-Book of Medicine and Surgery for 1898, we have the most complete, thorough and comprehensive work of its class. The work of Pepper on Medicine, Keen on Surgery, Hirst on Obstetrics, Baldy on Gynecology, Pediatrics by Starr, Pathology by Guiteras, Nervous Diseases by Church, Orthopedics by Gibney, and others of like eminence in the various special departments entrusted to them, combined into one systematic and comprehensive collaboration of the previous year's attainments by so able and efficient an editor as Dr. Gould, is an assurance more than doubly sure of the careful

screening of the sound grains of medical science from the chaff and rubbish of empiricism, by careful judgment and thorough investigation. It is practical, reliable, neglecting nothing of established merit, and not wasting time on the worthless; it is of the greatest value to the writer, the teacher and the practitioner, and is a most substantial addition to medical literature, in which you will find the condensed wisdom throughout the civilized world.

It is impossible as well as unnecessary to consider each article or subject in detail; and while the resumé of general medicine, surgery, obstetrics and gynecology necessarily from their magnitude occupy somewhat more than half the volume, the oculist, the dermatologist and other specialists will find here the latest and best experiences, and ought to have this book, not only to know what are the advances in his special department, but to have an easy and immediate reference book as to the progress in other hands of the healing art. Indeed, we can unhesitatingly say, that anyone interested in any way in the science and art of medicine and surgery, or any of its departments will find the work of incalculable value.

The *Journal of the American Medical Association* says of it: "The editors have done their work well, and the book as finished is beyond praise. The publisher has spared no pains to produce a book with faultless typography and superb illustrations."

RELIGION AND LUST. By JAMES WEIR, JR., M.D. Published by the COURIER-JOURNAL PRINTING Co. 1897.

This little volume, by Dr. Weir, will be extensively read for the interesting materials presented, and for the ingenious and general fair use the doctor makes of them. His associating, even remotely, the bestial orgies of savage nations, with the solemn Hebrew rite of circumcision is, however, unwarranted. So also is the designation of the latter as a phallic fetich. Circumcision was not a worship of the phallus, but was instead a degradation of that organ, by its mutilation, to typify the cutting off the sins of the flesh, a separation of the devotee from the world. Colossians, Chapter 2, verse II., etc.

His deduction that religious emotion and sexual desire are correlated is poorly supported by the fact adduced that religion is more frequently embraced in youth than in the later habit-

heart, gall stones, glaucoma, haemophilia etc., and the value of American means of treatment in preliminary and advanced conditions usually considered incurable. Not having space to review the work as its author has done, I will submit the titles of its seven important chapters: The normal heart; Fatty ills which are not diseases; Fatty degenerations recognized as fatty degenerations; Masquerading fatty degeneration a preservative process; Fatty degenerations; Treatment of fatty ills; and special and particular treatment of cases. Its careful reading is most earnestly recommended, as it contains many valuable ideas original in conception and instructive.

KLEMPERER'S CLINICAL DIAGNOSIS. By DR. G.
SOR at the University of Berlin. First Americ
and last German edition; authorized transla
BRILL, A.M., M.D., Adjunct Attending Physi
pital; and **SAMUEL M. BRICKNER, A.M., M.D.**
gist, Mt. Sinai Hospital, Dispensary. THE M
66 Fifth Ave., New York City, Publishers. 18

There are valuable works for the physical diagnosis, treatises elaborate and expensive, question as to the value of these, but there is a brief, compact yet exceedingly comprehensive treatise on the subject which is offered under the title of "Clinical Diagnosis," by Dr. Klemperer. The student who wishes to review the subject without having a large text book will find it most convenient to his needs. For the student it has no equal. It is well and elegantly illustrated and not at all expensive, the price being one dollar. It is a brief but comprehensive treatise on the subject, a handy book of reference for the student.

THE COUNTRY DOCTOR for May with its brilliant us ahead of time, in all the glaring garishness of a way to church in spring-time in a "bran-new red k John," said Pat, the butcher, on looking at his new stocks, "Oi do'nt care phwat color ye paint her, i with a bullock's head on her soide." Go it whi - may you live long and prosper"—sure you are fu

PHILLIPS' MILK OF MAGNESIA

(MgH₂O)₂ FLUID. THE PERFECT ANTACID
for NEUTRALIZING SYSTEMIC and LOCAL HYPER-ACIDITY. Especially applicable in
GASTRO-INTESTINAL disturbances of infants.
An excellent VEHICLE for the SALICYLATES, IODIDES and BROMIDES.
Prescribe "PHILLIPS". THE CHAS. H. PHILLIPS CHEMICAL CO., 77 Pine St., New York.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,
DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX.

NASHVILLE, JUNE, 1898.

No. 6.

Original Communications.

FEVER, JUST FEVER.*

BY DEERING J. ROBERTS, M.D., OF NASHVILLE.

The literature of fever from the earliest days of medicine to the present constitutes such a mass of reading as almost to appal the most virile and eager mind in undertaking its investigation; nearly 300 of the double-columned quarto pages of the Index Catalogue of the Surgeon-General's office being occupied alone with the names of the writers and the titles of the massive volumes, or more concise monographs, essays and dissertations on fever in that library. Therefore, it is with a feeling of apprehension, doubt and misgiving that I shall endeavor in this paper to add a few thoughts, the results partly of clinical observation,

*Read before the Tennessee State Medical Society, at Jackson, Tenn., April 12th, 13th and 14th.

that I sincerely hope will not prove trite and wearying, and if they do not elucidate or instruct, with the desire that they may inculcate observation and investigation, both abler and more competent, they are respectfully submitted.

Webster's definition of the term fever is sufficiently accurate, and while in many diseased conditions "elevated temperature, unnatural pulse rate, accelerated perspiration, defective nutrition and morbid elimination, with other accompanying pathogenic processes," are both common and presenting great similarity, yet we have quite a number of local lesions in other phenomena determining a specific or characteristic fever.

The initial phenomena of all fevers are indeed much alike, and until subsequent developments other than those of fever manifest themselves, some by their presence and others by their absence, a malarial remittent, pneumonia, gastric or enteric inflammation, typhoid or yellow fever, the various exanthemata and other general or definite and specific morbid conditions can not be differentiated. The history of exposure to some one of the contagious exanthems or its characteristic rash or eruption appearing after one or several days of marked febrile disturbance, the physical signs of pulmonary inflammation, or by exclusion of known causes and conditions the result of close observation for one or more days, its periodical exacerbation, or other accompanying specific phenomena, will in most cases determine the character of fever on hand. It was reserved for the great Sydenham to differentiate between the leading exanthematous fevers but little over two centuries ago; and it was not until the early part of the present century that Pierre Bretonneau, of Tours, under the term *dothicnenterite*, and Petit and Serres as *fievre-entero-mesenterique*, and a little later Louis, who did the most to disseminate a correct knowledge of the true nature of typhoid fever, which is quite recognizable in the far earlier writings of Galon, Hippocrates, Adrian Spigelius, and other subsequent writers, who, however, in nearly every instance confounded it with typhous fever, or other diseases from which we now know it to be quite distinct.

Of the 300 pages in the Index Catalogue devoted to the titles of authors and dissertations on fever previously alluded to, we find fully one-fifth occupied by this one specific fever, and this

mass of literature devoted solely to typhoid fever is the outcrop of the present century, and the large amount of it emanating from American authors is almost limited to its latter half; and although this disease is stated by Tyson to be "coeval with civilization," a somewhat indefinite term, and we now know that it has existed for unknown centuries, my own personal early recollection takes me back to the day when it was regarded as a new disease in this State. Although so much has been written about it, and we now accept as a fact that it is a specific form of continued fever due to the results of the bacillus typhosus of Eberth, with local lesions affecting certain glandular structures of the intestines with accompanying sequelæ, yet we are not fully versed in a satisfactory knowledge of an only too frequent and often exceedingly serious if not fatal malady. We know that it presents certain clinical features, which taken *en masse*, enable us, as a rule, after sufficient time, to differentiate it from other febrile processes. We also know that these clinical features in many instances differ in degree, some at times being quite prominent, others less so or wanting; the variations ranging all the way from typical to atypical; and it is just these variations that justify me in taking up your time.

My medical life commencing with 1860, its earlier days were occupied with the seemingly conflicting duties of the novice, on which supervened a great civil whirlpool of strife and storm in which there was but little time for observation, but only action dependant on the traditions and developments of past observers; yet, for thirty years past, I have seen occasional cases of fever that could not be correctly placed in either the two great divisions of typhoid or malarial, or other accepted distinct types of fever. These cases have cropped up one or more each year, until 1891, when, in the middle division of this State, and in Nashville especially, it assumed almost, if not quite an epidemic form. Dr. J. S. Cain, in an address before the Nashville Academy of Medicine, which I had the pleasure of publishing in THE SOUTHERN PRACTITIONER in December of that year, considered the subject most ably, and his remarks on that occasion cannot but be substantiated by all who will calmly and with unbiased minds, closely observe the various forms of fever that will from time to time present themselves.

Dr. T. R. Moss, of Dyersburg, in a very excellent paper entitled "The Protracted Fevers of West Tennessee," submitted to this Society at its meeting in 1895, and the discussion thereon fully sustains the assertion that we have a fever differing materially from the two principal divisions of fever known as malarial and typhoid, about which so much has been written.

The unfortunate term coined by the late Surgeon-General of the United States Army, Dr. J. S. Woodward, and subsequently relinquished by him, has had much to do, in my opinion, in arresting proper investigation. The term typho-malarial was to some extent captivating, and it was only too easy to accept the statement of such a combination of two entirely distinct poisons and resulting effects such as might be supposed would necessarily follow—the febrile phenomena while presenting some marked features of similarity to each, yet lacked other no less important characteristics—just as the mule has certain characteristics of both the horse and the ass, yet is neither, but a true hybrid.

Other writers of greater or less prominence in the medical world have occasionally touched upon this subject. Among the latest is Dr. Tyson, of Philadelphia, in his recent work on *The Practice of Medicine*, ignoring the term typho-malarial, he has a short but very interesting chapter on "Protracted Simple Continued Fever," which he designates as "a feverish process of a longer duration than ephemeral fever or febricula—a fever of long duration that is not typhoid or influenza—lasting from two weeks to three months, and without definite lesions." He further says: "Knowing, however, what we do know, and limited as our knowledge still is of infection, it is more than likely that some day a specific cause will be found for each of a motley group of such fevers, which will give them a definite name, just as cases formerly thus grouped are now relegated to typhoid fever."

Dr. J. M. Da Costa gave a very excellent description of "Protracted Simple Continued Fever" in his paper before the American Association of Physicians in 1896, classifying it with what had been described as the *ardent fever* of the older writers.

From a lecture by Prof. Wm. Pepper, M.D., reported for the last January number of THE SOUTHERN PRACTITIONER, I make the following somewhat lengthy quotation:

"There are cases of fever in which the process seems to arise from no specific cause. They exist without local lesion, without eruption, and without bacterial cause. They last from ten days to two weeks, as a rule, and have a tendency to terminate in recovery. These cases are troublesome from the fact that they throw a condition of doubt into the physician's mind as to whether they might not be specific in character, with the diagnosis overlooked. They are more frequent in the young than in the old; for the young get fever much more easily than their elders. The majority of cases seem to fall between the years of 19 and 24; they are more common and violent in hot climates; in fact, in the tropics, cases of this sort result fatally, and yet show no specific cause. They seem to be due to exposure of extremes of heat, of cold, to violent fluctuations in the temperature, to indiscretions in eating and drinking. They seem to be cases of self-poisoning, in which the system seems unable to free itself from waste products; there is disturbance of the nerve centres; especially those of heat control, but the process does not go into the formation of anatomical lesions, or of inflammatory complications. These cases of fever terminate in complete and prompt convalescence, because there are no lesions to repair. The spleen in some cases may be somewhat enlarged, but not markedly so, and there may be traces of albumen in the urine. In fatal cases of the ardent type of the tropics, the autopsy reveals no causes, although the Peyer's glands may be a little swollen. There is no lesion of the solids; the changes, whatever they are, take place in the blood and nervous system. The process is due to a chemical, not a microbic poison.

"It is noted that the symptoms begin without any marked prodromata. There may be lassitude, headache, disturbed sleep, and malaise for a day or so, but these symptoms have not the severity or the pertinacity of commencing typhoid fever. Then develops the stadium of the disease. The temperature goes up quite rapidly, and often to a high degree, reaching possibly to 103° on the second day; in the severer type of the tropics it may reach to 105° . It is a curious fact that the initial rise may be the highest point reached in the entire fever, but the elevated temperature remains with moderate daily fluctuations, a possibility of a degree and a half in twenty-four hours. This condi-

tion of affairs will last for about ten to fourteen days, and then be terminated by a rather abrupt fall. There is copious sweating, urination, or diarrhoea, and the temperature goes to normal in a couple of days. During the continuance of the disease the nervous symptoms are mild, although there may be headache as marked and as violent as in typhoid fever. But the patient is not so drowsy as in typhoid fever, nor does he display any tendency to stupor, picking at the bed clothes, tremor, or other severe nervous symptoms. There is a curious absence of any functional disturbance. The tongue is moist, yellowish in the centre, but reddish at the edges. The appetite will probably disappear, but diarrhoea or vomiting is rather rare. As a rule, the bowels are quiet, and the abdomen not particularly painful, nor is it depressed or distended. The urine is febrile and scanty, high colored and strong in odor, containing phosphates and urates, and possibly a little albumen. Nose bleed is rare; there is no eruption, although there may be bluish, slate-colored spots of congestion under the epidermis. When sweating appears there may appear water blisters upon the epigastrium or folds of the groin. There may also exist herpes about the mouth, but it is not common, and is slight in character. There are no complications, and there is prompt and complete convalescence. In many cases there does not exist a tendency to subsequent attack."

Dr. Pepper's statement that "they seem to be due to exposure of extremes of heat, of cold, to violent fluctuations in the temperature, to indiscretions in eating and drinking" is not only somewhat indefinite, showing a want of thorough knowledge of such cases, but is not sustained by observation, in my humble opinion. This additional statement that "they seem to be cases of self-poisoning, in which the system seems unable to free itself from waste products," with a like degree of temerity, I also question. While occurring mainly in the summer and autumn, they have not been limited to seasons of extreme vicissitudes or marked fluctuations, and occur, in my observation, as often in those who are temperate in both eating and drinking as those given to the opposite; and the absence of previous malaise for any great length of time, prodromic symptoms, etc., coming on mostly in persons in the active period of life, and when in apparently good health, when elimination might be considered

to be fully active, does not indicate self-poisoning or the accumulation of waste and effete products in the system as an etiological factor. There may develop self-poisoning, and the accumulation of waste products as a result of defective elimination, but just as in typhoid fever, in the exanthems, in malarial fever, this is a general result of a specific cause, "chemical" or "microbic," yet to be determined.

No, we cannot accept these cases as either typhoid or malarial fever, or a combination of the two under the hybrid term typho-malarial, and fully agree with Dr. J. S. Goodhart, who, in his communication on "Innominate Fever," in Guy's Hospital Reports, in 1888, says: "There is too great a tendency to label all continued fevers by some definite name." Just as it was reserved for Bretenneau, Petit Serres and Louis of France, in the early part of this century; and a little later for Gerhard, Jackson, Alfred Stille and Elisha Bartlett to segregate Enteric or Typhoid (*tuphos-eidos, typhos*) from Typhus Fever, so it is now incumbent on us by careful observation and close discrimination to differentiate another—not typhoid, neither malarial, nor even typho-malarial, which I, for one, for some years past could only distinguish as Fever, Just Fever. Yes, a continued fever, with its temperature above the normal, pulse rate and respiration accelerated, nutrition defective, elimination abnormal, marked tissue waste, thirst and loss of appetite, yet no local lesion or special complication other than that produced by accidental factors, or injurious medication in its initial stages.

Many of the cases present simply a condition of fever unaccompanied by any local or special lesion whatever, and while presenting some features common to typhoid or malarial fever, yet others, important and no less characteristic are wanting. Few of the cases terminate fatally, hence but little opportunity is offered for post-mortem investigation; but from the unanimity with which we can eliminate the one essential condition of pathogenic processes involving the glandular structures of the small intestine, and the irregular and erratic temperature record, we cannot denominate it even a hybrid typhoid. In some instances when excess in eating, or indigestible articles of food has been indulged in, immediately prior to, or during the attack, or when too active purgation has been resorted to, we will have a more

perfect analogue of typhoid, resulting possibly in death or a more prolonged attack followed by slow and tedious convalescence, and possibly some of the commoner sequelæ of that disease.

Most of the cases I have observed, however, and especially those to whom I have been called early, have run a more or less uniform course as outlined in the quotation from Prof. Pepper, the majority terminating satisfactorily in about two weeks, although I have had a few cases that ran on for three weeks or even longer, presenting the phenomena of fever only, without other local or general manifestations. Even at the risk of taxing your patience, I will submit the following report:

G. M., an Italian, æt. 20, who came to this country at the opening of our Centennial last summer, called on me September 27th last. He said that he had felt badly the day before—previously in good health—headache, loss of appetite, pains in back and limbs, which still persisted, pulse 92, temperature 102°; tongue coated, dirty yellowish in color, broad and flabby; bowels had moved slightly the day before. I gave him calomel, one grain, divided into four doses at intervals of two hours, that afternoon, to be repeated the next afternoon; and quinine sulphate, forty grains, divided in twelve gelatine capsules, two to be taken at 6, 11 and 6 o'clock that night and the succeeding one. Was requested to see him at his boarding house on the evening of the 30th, and found him in pretty much the same condition, feeling possibly a little better; bowels had acted well the day before, temperature 101°, pulse 90. Continued the calomel and quinine as before. The next morning on calling at about 10 o'clock, I found his temperature $102\frac{1}{2}$ °, pulse 92, and advised his removal to where he could be better cared for. About midday or a little after, he was placed in a carriage and brought to the Infirmary of Drs. Haggard, in the central portion of the city, and about two miles from his former quarters. Here he was placed in a well-ventilated apartment, and in the care of a reliable and experienced nurse, who carefully kept the record of temperature and pulse-rate throughout the attack, which is respectfully submitted. The rise of over one degree, the first record, I attributed to the exertion and excitement attending the removal. The sudden drop, on the morning of the 8th, I

cannot account for only as one of the vagaries of temperature range; it was accompanied by no untoward or unusual symptom;

At 2 P.M., on June 1st, temperature $103\frac{1}{2}^{\circ}$, pulse 96; at 4 P.M., temperature 103° , pulse 94; at 8 P.M., temperature $102\frac{1}{2}^{\circ}$, pulse 90.

June 2nd, at 8 A.M., temperature 102° , pulse 88; at 12 M., temperature 103° , pulse 90; at 5 P.M., temperature $101\frac{1}{2}^{\circ}$; at 8 P.M., temperature $101\frac{1}{2}^{\circ}$, pulse 98.

June 3rd, at 7 A.M., temperature 102° , pulse 90; at 12 M., temperature 103° , pulse 90; at 5 P.M., temperature $101\frac{1}{2}^{\circ}$, pulse 90.

June 4th, at 8 A.M., temperature $101\frac{1}{2}^{\circ}$, pulse 86; at 11 A.M., temperature $102\frac{1}{2}^{\circ}$, pulse 90.

June 5th, at 8 A.M., temperature 102° , pulse 90; at 12 M., temperature 103° , pulse 90; at 4 P.M., temperature 103° , pulse 90.

June 6th, at 8 A.M., temperature 102° , pulse 88, remaining at that until last record, 9 P.M., pulse rising to 90.

June 7th, at 8 A.M., temperature 101° , pulse 88; at 12 M., temperature 101° , pulse 82; at 4 P.M., temperature 102° , pulse 86.

June 8th, at 8 A.M., temperature 100° , pulse 88; at 10 A.M., temperature 97° , pulse 90; at 12 M., temperature 100° , pulse 90; at 5 P.M., temperature 101° , pulse 80.

June 9th, at 8 A.M., temperature $100\frac{1}{2}^{\circ}$, pulse 80; at 10 A.M., temperature $101\frac{1}{2}^{\circ}$, pulse 90; at 1 P.M., temperature $101\frac{1}{2}^{\circ}$, pulse 90; at 5 P.M., temperature 99° , pulse 86.

June 10th, at 8 A.M., temperature 100° , pulse 80; at 12 M., temperature $102\frac{1}{2}^{\circ}$, pulse 80; at 4 P.M., temperature $101\frac{1}{2}^{\circ}$, pulse 80; at 10 P.M., temperature 101° , pulse 80.

June 11th, at 8 A.M., temperature $100\frac{1}{2}^{\circ}$, pulse 78; at 12 M., temperature $100\frac{1}{2}^{\circ}$, pulse 80; at 4 P.M., temperature 103° , pulse 90; at 6 P.M., temperature 102° ; at 10 P.M., temperature 101° , pulse 80.

June 12th, at 8 A.M., temperature 101° , pulse 86; at 12 M., temperature $101\frac{1}{2}^{\circ}$, pulse 80; at 4 P.M., temperature 102° , pulse 80; at 6 P.M., temperature $101\frac{1}{2}^{\circ}$, pulse 80.

June 13th, at 8 A.M., temperature $102\frac{1}{2}^{\circ}$, pulse 86; at 12 M.,

temperature $100\frac{1}{2}^{\circ}$, pulse 80; at 4 P.M., temperature $102\frac{1}{5}^{\circ}$, pulse 80; at 6 P.M., temperature 102° , pulse 86.

June 14th, at 8 A.M., temperature $101\frac{1}{2}^{\circ}$, pulse 80; at 12 M., temperature $101\frac{1}{5}^{\circ}$, pulse 80; at 5 P.M., temperature 102° , pulse 80; at 10 P.M., temperature 102° , pulse 80.

June 15th, at 8 A.M., temperature 102° , pulse 82; at 12 M., temperature $101\frac{1}{5}^{\circ}$, pulse 80; at 5 P.M., temperature 101° , pulse 80; at 10 P.M., temperature $101\frac{1}{5}^{\circ}$, pulse 80.

June 16th, at 8 A.M., temperature 102° , pulse 80; at 10 A.M., temperature $101\frac{1}{2}^{\circ}$, pulse 82; at 3 P.M., temperature 101° , pulse 82; at 10 P.M., temperature 102° , pulse 86.

June 17th, at 8 A.M., temperature 101° ; at 10 A.M., 12 M. and 4 P.M., temperature 101° , pulse 80.

June 18th, at 8 A.M., temperature 100, pulse 80; at 10 A.M., temperature $98\frac{1}{5}^{\circ}$, pulse 86; at 8 P.M., temperature $101\frac{1}{5}^{\circ}$, pulse 86; at 10 P.M., temperature 100° , pulse 80.

June 19th, at 8 A.M., temperature 100° , pulse 80; at 10 A.M., temperature $99\frac{1}{5}^{\circ}$, pulse 80; at 12 M., temperature 99° , pulse 80; at 6 P.M., temperature $100\frac{1}{5}^{\circ}$, pulse 86.

June 20th, at 8 A.M., temperature $98\frac{1}{5}^{\circ}$, pulse 78; at 12 M., temperature 99° , pulse 78; at 10 P.M., temperature $99\frac{1}{5}^{\circ}$, pulse 78.

June 21st, at 8 A.M., temperature $98\frac{1}{5}^{\circ}$; at 10 A.M., temperature $97\frac{1}{5}^{\circ}$; at 12 M., temperature 99° ; at 6 and 10 P.M., temperature $99\frac{1}{5}^{\circ}$, pulse 78.

June 22nd, at 8 A.M., temperature $98\frac{1}{5}^{\circ}$; at 10 A.M., temperature 96° ; at 12 M., temperature 98° ; at 6 P.M., temperature 99° ; at 10 P.M., temperature $100\frac{1}{5}^{\circ}$, pulse 78.

June 23rd, at 8 A.M., temperature 97° ; at 10 A.M., temperature 96° ; at 6 P.M., temperature $98\frac{1}{5}^{\circ}$; at 10 P.M., temperature $98\frac{1}{5}^{\circ}$, pulse 78.

June 24th, at 8 A.M., temperature 97° ; at 12 M. and 10 P.M. temperature $98\frac{1}{5}^{\circ}$.

June 25th, at 8 A.M., temperature 98° ; reading normal at noon, and there remaining; with pulse steady at 78.

His treatment throughout was limited to six drops of Acid Phosphoric Dilute, every six hours; sponging the entire body twice or more each day, changing his clothing every day, and the bed-clothing at least every other day, restricting him strictly

to fluid diet. As he objected to drinking milk, I was limited to soups and broths. His bowels moved usually from one to two times a day; nothing whatever in the discharges at all characteristic of typhoid fever. At no time was there the slightest tenderness of the abdomen, except slight uneasiness or discomfort on deep pressure over the epigastric and rt. hypochondriac region during the first week or ten days. There was never gurgling, or the slightest tenderness in right iliac region, and no tympanitis, the abdomen gradually becoming flattened from emaciation. It simply went on from day to day with Fever, just Fever, and nothing else. Intellect clear throughout, and sleeping fairly well each night. Slight moisture of skin, but no profuse perspiration, the last three or four days. His weight was reduced from 190 to 138 pounds. Convalescence was rapid and uneventful.

Another case to which I was called, July 4th, last year, ran a more lengthy course, lasting over seven weeks, in which the fever was abrupt in its development, only feeling indisposed the day before I saw him, at which time, 10 A.M., temperature was 103° , pulse 82. This was also a young man of 20, book-keeper, previous health good. With quinine and calomel, as in the case just cited, his temperature came down to 101° , on the morning of the 7th, and 100° in the evening; rising, however, to 102 on the morning of the next day, and fluctuating between 102° and 101° ; the higher marking being usually in the morning, until July 15th, when it was down to 100° morning and evening; but, to my great surprise and disappointment, without any known cause whatever, on the morning of the 16th it had come up to 104° , dropping to 103° in the evening, then gradually and irregularly declining until it had dropped to 101° on the morning of the 29th, which was followed by a rise to $104\frac{1}{2}^{\circ}$ on the morning of the 30th, varying between 103° and 105° all through the first week in August, gradually declining during the next ten days.

Here we had also nothing but fever; bowels at no time tender or any way disturbed more than if the febrile exacerbation had been accompanying a pulmonic inflammation, no gurgling or tenderness over iliac region and no tympany—occasional evacuations being formed and of a pasty consistency—the temperature

wave and intestinal symptoms in no ways resembling typhoid fever.

In both these cases, as well as others, the diazo-reaction of the urine, according to Erlich's method, was negative. Two efforts with the Widal blood test, made on the 15th and 20th days in the first case, as well as one after convalescence was established, failed in giving results. The temperature was certainly not in accordance with that of typhoid fever. These two cases are given somewhat in detail, as they were of recent occurrence, and were longer in duration than many that I have seen; yet from a careful study of them, as of others, I cannot place them in the list of typhoid fever, neither of malarial fevers, nor of typho-malarial, which so able a clinician as Prof. Osler says "exists only in the mind or the imagination of the doctor."

SOME OBSERVATIONS AND DEDUCTIONS APPLICABLE TO THE TREATMENT OF CONSUMPTION.*

BY G. W. DAYWALT, M.D., OF SAN FRANCISCO, CAL.

About five years ago I found that chronic discharges from the ear containing bacilli tuberculosis were the cases that responded most readily when thoroughly cleansed with peroxide of hydrogen and packed with finely powdered C. P. boracic acid. After making this observation I was called to attend a girl nine years old, suffering from a greatly swollen knee. By use of the hypodermic needle I obtained some of the pus, and microscopic examination proved it to be tuberculous. I made a free incision, cleaned the wound thoroughly with peroxide of hydrogen and packed with boracic acid, and placed the patient upon a liberal diet. Within six weeks the knee was cured and has remained so. Closely following this I had for a patient a man 35 years of age, suffering from diabetes. He was of average size, but had lost about 20 pounds in weight. The urine had a sp. gr. of 1038 and contained 2 per cent. sugar. After six weeks of the usual

*Read at the meeting of the California Medical Society at its past meeting in Fresno, Cal., April 19th, 20th and 21st, ult.

treatment there was but little improvement in the symptoms. He complained of pain in the right lumbar region and some tenderness upon pressure over the right kidney. There was pus in the urine. I examined it microscopically and found it contained bacilli tuberculosis. Guided by the former cases of suppurating ear and knee I began to administer 10 grs. boracic acid three times a day. After two days the pain had all disappeared from the back and the tenderness over the kidney was diminished, but the acid soon began to irritate his stomach. This was somewhat relieved by dissolving the acid in a glass of hot water and adding 30 m. of peroxide of hydrogen.

He improved rapidly under the treatment, and after six weeks neither pus nor bacilli were to be found in the urine. After three weeks, owing to stomach disturbances, the treatment was alternated every five days with creosote mixture. At the end of four months he was cured and has ever since followed his occupation, that of an electrician.

These instances suggested the possibility that in boracic acid and peroxide of hydrogen we had a remedy for consumption if it could be applied to the seat of the disease. It was not, however, until the appearance of oxytuberculin that the idea was suggested to me of applying it hypodermically—of using the circulation to carry the remedy through the heart direct to the lung, the seat of the disease. But oxygen in the form of peroxide was not safe. 5 c. c. of a 9 per cent aqueous solution of peroxide of hydrogen introduced into the femoral vein will kill a dog within 30 seconds, so rapid is the decomposition of the peroxide. Again, it is very irritating to the tissues. I then thought that perhaps the continued heat under pressure, to which peroxide of hydrogen was submitted in the manufacture of oxytuberculin, converted the oxygen into an allotropic form and that, when the oxide of boron was added, there was a chemical affinity which produced a remedy of therapeutic value. With this view, and knowing the strong affinity of boron for oxygen, I determined to break up boron salts in the presence of a strongly oxidizing agent. This may be effected in various ways. Take any compound of boron, such as boracic acid or borax, and oxidize it with any agent that is capable of producing peroxide of hydrogen. In practice it is found better to effect this decom-

position and oxidation under pressure. The product is a colorless liquid, slightly acid in reaction and is perfectly permanent in composition.

I have named it OXYGENATED OXIDE OF BORON. It has no perceptible injurious effect upon the animal organization. It prevents bacterial growth and preserves organic tissue. In this respect it very much resembles the action of creosote, yet it is free from the irritating effects of the creosote. It is very bland; 20 c. c. introduced daily for two months into the intra-scapulæ region has produced no unfavorable changes in the local tissues.

Last August a young man, 21 years old, who has been ailing about one year, consulted me. His mother had died of consumption at the age of 28. Physical examination showed the apex of each lung to be infiltrated. There was a small cavity in the right lung, accompanied with a general bronchitis. He was expectorating daily about 100 c.c. of pus. The bacilli were abundant. He was very much emaciated. All treatment so far had been unavailing. He was above the average in intelligence, and I fully explained to him my ideas concerning the disease, and that I hoped for success in the use of oxygenated oxide of boron. On the first day of September I injected 5 c.c., on the second day, 10 c.c., on the third day, 15 c.c. By the fourth day his expectoration had become more free; he had slept well, and had eaten a good breakfast and lunch. All pain had disappeared. I continued to inject 15 c.c. daily for four weeks, with uninterrupted improvement in all the symptoms. At the end of the first week's treatment the bacilli seemed somewhat smaller; they appeared more lean, as though suffering for want of nourishment. At the end of the second week the numbers began to decrease, and by the first of December none were to be found. The bronchitis had entirely disappeared. There was still a little infiltration in the right lung. But he had gained thirty pounds in weight and appeared perfectly well.

On the third of September I was called to see a man who was 55 years old, and who had been afflicted with consumption for fifteen years, and confined to his bed for ten weeks. In short, was in the last stages of the disease, and had been given up to die by his family physician. To my great surprise, I had been sent for to administer my new remedy for consumption. Not-

withstanding my protest that I considered the case hopeless, he and his wife insisted that it be used; that it could do him no harm, as he would die any way. He had a temperature of 102, pulse 120, and respiration 36. I introduced 20 c.c. The next day I found his temperature 100, pulse 110, respiration 80, and expectoration easier. I then administered 40 c.c., and upon my visit the next day I found all the symptoms much improved. The temperature was 99, the expectoration more watery, and the severe pain that he had complained of while coughing had disappeared. He began to relish food, and seemed to be improving a little for about six weeks, when he was suddenly taken worse and died. The extensive destruction of lung tissue made it a hopeless case from the beginning, but the observations made increased my faith. The bacilli had diminished and changed in appearance. The expectoration, which was about 200 c.c. daily, had become odorless and more watery in appearance, and all pain had disappeared. Opium in any form was never used to relieve pain or coughing.

My fifth case was a man at the age of thirty, who had had two hemorrhages within the previous six weeks. About eight months before his appetite began to fail, and was followed by great loss of weight. At the time he presented himself to me for treatment it was almost impossible for him to retain anything on his stomach. Even the thought of taking medicine produced nausea. This difficulty was overcome by the treatment being hypodermic. After the second dose the nausea entirely disappeared, and within one week's time his appetite had returned. The maximum dose in his case was 10 c.c. At the end of five weeks' treatment he had gained ten pounds, and had ceased coughing entirely.

I will not take up the time of the Society by relating in detail any more cases, but will state briefly that from September 1, 1897, to April 1, 1898, I have treated eighteen cases of tuberculosis of the lungs, of which ten were in the first and second stages, and are cured in the sense that all cough had ceased, no bacilli are to be found in the sputa. The patients have regained their normal weight and appearance. The remaining eight were in the third and fourth stages of the disease; two have died, and the other six are still under treatment.

I do not wish to create the impression that I have not availed myself of other therapeutic means. In most of the cases in which I have used this treatment, I have given, as I thought indicated, strychnia and bitter tonics in general. In some, the mineral acids with pepsin, in others, the hypophosphites of lime and iron, however, avoiding syrups, giving them in powdered form, triturated with sugar of milk, and taken with the food the same as salt. I see that the patient gets plenty of wholesome food, and that it is being assimilated. The presence of boron in the system I believe aids assimilation. The boron acts as a specific, inhibiting the growth of the bacilli. I use other medicines synergistically as I would arsenic and iron in combination with quinine in chronic malarial poisoning; or iron and iodine in combination with mercury in tertiary syphilitic lesions. By the time patients have applied for treatment there is always organic changes within the lungs. Nature must be assisted to repair this pathological condition by applying the necessary food (medicine) to replace the destroyed tissue.

So far I think creosote has more advocates than any other remedy. It preserves animal and destroys bacterial life. So does boron. Soil impregnated with boron will not sustain vegetable growth. Dead animals saturated with it will not putrify. In the form of an oxide it is most active, yet so bland to the tissues that the body may absorb sufficient to be inimical to the bacilli tuberculosis.

April 23, 1898.

THE ALERT PRESCRIBER.—A man in the car was telling how good his doctor was. "Clever?" said he; "well I should say he was. The other day I called him in when I had swallowed five cents. He said if the coin was not counterfeit it would pass, and made me cough up two dollars."—*Medical Record.*

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas Texas, and New York, N. Y., sole agents.

Clinical Reports.

POISONING FROM WOOD ALCOHOL.

At the regular meeting of the Nashville Academy of Medicine March, 17th ult., T. Hilliard Wood, M.D., Professor of Diseases of Eye, Ear and Throat, Medical Department University of Tennessee, reported the case of a lawyer, æt. 27. a periodical drinker, but lived in a prohibition town. His physician had given him a prescription for Bay Rum f 3 j., Alcohol f 3 iv., which he was in the habit of having refilled from time to time. The last time the druggist dispensed Bay Rum f 3 j., instead of f 3 j., stating that it had been made with Wood Alcohol. Within the next few days after drinking it, his vision became greatly impaired, resulting in five days in total blindness. Pupils dilated, but would respond to light. Peripheral vision not gone, but very slight. Ophthalmoscope showed nothing abnormal. Diagnosis: paralysis of centre of vision in occipital lobe. Patient was put on strychnia and bitter tonics, and ordered Russian baths, which was followed by gradual improvement, and vision was much better.

Dr. Paul F. Eve thought the diagnosis certainly correct and that the trouble was most probably caused by the wood alcohol.

Dr. Deering J. Roberts said that wood alcohol was the cause unquestionably, and that Wood treatment would certainly relieve him. He stated that of the three principal forms of alcohol, while all were hydro-carbons with the addition of water, their chemical composition varied materially. Ethyl Alcohol, C₂H₅OH, made from fermented grains and sugars, and found in brandy, whiskey, etc., was the only one for use either as a beverage or in the composition of drugs, such as tinctures, etc., to be taken internally, or introduced into the circulation. Amyl alcohol C₅H₁₁OH—potato-spirit or fusel oil—sometimes found combined with ethyl alcohol, (and distillers endeavor to get rid of it by simply ageing the combination by which the fusel oil

was eliminated). You will be very apt to find "moonshine," warm from the still, quite rich with it.

Methyl alcohol—wood-spirit— C_2H_5OH , should not be called an alcohol, and was only fit for combustion in lamps or as a solvent in the mechanic arts. It should be rigidly excluded from the manufacture of any medicine used internally.

At the meeting of the Academy March 31st, Dr. Wood made a farther report of the case, stating that the patient had entirely recovered and had returned to his home.

Selections.

TREATMENT OF TYPHOID.—It is probably true that no single medical disease has been talked about in the societies and written about in the journals to a greater extent during the past eighteen months than has the subject of typhoid fever. Not to enter upon the question of why this is so, it may perhaps be profitable to look over the field that has been so laboriously worked and see what conclusions have been reached, and to note such claims as have been put forward for new remedies or new methods, so that they may be compared with the older. The progressive practitioner of the day usually has for his motto, "Be not the first by whom the new is tried, nor yet the last the old to lay aside," and, acting upon this guiding principle, he is always ready to accept the new way, when it has been shown to be the best one.

Unfortunately, perhaps, in typhoid as in almost every other morbid process, there can be no single royal road to cure applicable in every case. While, however, each individual affected must be treated more or less according to the conditions presenting themselves, there are certain general principles of management which apply to all.

In a recent discussion by the Lenox Society almost all the members agreed that a generous dose of calomel at the onset of decided symptoms of typhoid was in order, and not a few believed that subsequent smaller doses might do much in the way of

establishing antisepsis of the intestinal canal by their effect in calling forth normal secretions which are antagonistic to germ life rather than by any direct action of the remedy itself upon the germs. The abortive plans, and especially that of Woodbridge, have been much discussed. If the data, as given in recent reports, are to be accepted on their face, one need scarcely look further, since the mortality is less than two per cent. in a series of cases running into the thousands.

The figures presented have not, however, been universally regarded as above honest doubt, and many authorities still maintain that antiseptic plans *per se* are not to be relied upon. Modified forms of the Woodbridge method are, however, springing up here and there, with reports to demonstrate their value. This would seem to indicate that there is more worth in antiseptics than many are willing to admit, unless the plan of administration is of their own device.

Advocates of the bath treatment appear to be increasing in number, and, while all do not agree as to the exact method of tubbing to secure the best effects, it is generally conceded that excellent results are to be obtained by judicious cold-water treatment, and the closer the Brand method has been followed the better the reports seem to be.

Among recent devices for decreasing the disagreeable features of the bath are a tub on wheels, to be brought close to the bedside; a hammock for lifting the patient in and out, with a minimum of discomfort for the latter, and of labor for the attendants; and a folding rubber tub with inflatable sides, which can be inserted like a sheet beneath the patient, filled, emptied, extracted, leaving him undisturbed in bed.

The serum treatment has as yet met with slight success, though an antitoxic would seem to be the ideal method. Some successful trials of anti-typhoid serum have been reported from England.

Hygienic and dietetic measures still have to be mainly depended upon, and Delafield's dictum that milk is the best food for typhoid patients is generally acquiesced in; but many practitioners have learned to watch for evidences that the too exclusive milk diet is causing injury, and they know that in a sudden rise of temperature, otherwise not to be accounted for, milk is to

be wholly withdrawn and broths, soups, gruels, eggs, etc., substituted for a time. Aside from securing mental and bodily rest, keeping the temperature within bounds, supplying sufficient fluids, and giving proper foods, each subject of typhoid must be treated according to the symptoms he presents. For the majority of patients showing high fever it is probable that tub baths will be found efficacious, since there is no longer question that the mortality has been greatly reduced by this method of treatment.

—*Medical Record.*

SUPPLEMENTARY REPORT ON THE STERILIZATION OF INSTRUMENTS BY FORMALDEHYDE.—The December number of this *Bulletin* contained an account of the work performed by Dr. Watson and myself with formaldehyde gas, and we stated then that Meyrowitz, of New York, was making for us an apparatus especially adapted for the use of this method of sterilization. The description below represents the sterilizer referred to and which I am now using in my daily work. It is of a size suitable for the ophthalmologist, otologist, laryngologist, or other surgeon, who uses comparatively small instruments. Should the general surgeon, or the obstetrician desire to adopt the method, a larger sized sterilizer can be readily made and special appliances may be inserted for holding the particular instruments used by him, as for instance, there is figured in the illustration a small tray for carrying such delicate instruments as the cataract knife, etc., so as to prevent their cutting edges from coming into contact with anything.

The sterilizer, which I have adopted for myself, is 7x12x12 inches, giving an air space of a little more than 1,000 cubic inches. The shelves are made of heavy, wide-meshed, wire gauze, the upper one extending entirely across the chamber, while the lower two are only 8 inches long, extending from the right side to an upright standard 4 inches from the left wall, thus leaving a space 4 inches wide by 8 inches high, which is reserved for the Schering Lamp used in vaporizing the pastils.

In the report of our work we called attention to two features in the sterilization of instruments by this method, which we thought required further study. The first related to the

question of the deposit of Paraform on the instruments and the possibility of such a deposit retarding the healing of wounds. The second was the possible effect of the gas upon the cutting edge of the instruments.

I think we are able now to give positive answers to both problems. Since receiving my new apparatus I have repeated all the bacteriological experiments quoted before, and with the same results published. I have further exposed instruments to five and six successive sterilizations by the gas, without any washing or cleansing whatever, and at the end of the experiments I was not able by the naked eye to discover any deposit whatever nor was there any taste of the gas when the instrument was applied to the tongue. A cataract knife so exposed was used in making a corneal section on a rabbit. Healing of the wound took place as usual when a sterile knife is used. Blunt instruments so exposed and then applied to my own conjunctiva produced no irritation.

As to the question regarding the edges of the knives I tested very carefully their sharpness by means of the kid drum, both before and after sterilization, and I am not able to discover that the gas affects this in any way. To see whether or not the gas would affect instruments made of other material than steel I repeatedly exposed the following instruments to the action of the gas; knives with aluminum handles, knives with ivory handles, a hard rubber syringe, soft rubber catheters, a Politzer air bag, and a nickel-plated syringe. None of these objects were in any way affected by the gas.

My conclusions are then that we have in this method a rapid, cheap, easy and sure method of sterilizing instruments without in any way injuring them.—*Dr. H. O. Reik, in Johns Hopkins Hospital, March, 1898.*

OLIVE OIL IN THE TREATMENT OF HEPATIC COLIC.—Dr. Barth (*Semaine Medicale*, No 56, page 441, 1897) states that the work of Chauffard and Dupre in France, and of Rosenberg in Germany, have established beyond a doubt the therapeutical value of large doses of olive oil in hepatic colic, and have partly elucidated the method of its action. When a considerable vol-

ume of olive oil, say one hundred or two hundred cubic centimetres, is introduced into the stomach of a patient suffering from hepatic colic, the stomach throws it off and the spasmodic contractions cause the liquid to spread over the whole surface of the stomach and a part is driven into the duodenum; thus the lubricating action of the oil makes itself felt over the entire irritated surface. Willemin and others have noted cases when this remedy acted like a charm, and almost as quickly as an injection of morphine. When the oil is once in the duodenum it comes in direct contact with the orifice of the ampulla of Vater. If the passages are permeable it may penetrate into the bile duct, but if a calculus blocks up the way capillarity comes into play, and the mucous membrane absorbs the oil and conducts it to the foreign body. According to Chauffard and Dupre, the oil cannot dissolve the calculus, Brockbank, by employing a bath of oil at the temperature of the body, has seen a calculus of 1.6 grams lose 1.21 grams in weight in four days, and in another case he has seen a loss of forty-four centigrams in the same time. While the oil remains in the canal it is submitted to the action of the digestive juices and is resolved into fatty acids and glycerin; a part is incompletely saponified and is expelled in the form of small concretions which are often mistaken for calculi, but they are only fatty matter rich in palmitin and palmitic acid. This digestive process is accompanied by an abundant secretion of bile, which commences about three-quarters of an hour after the ingestion of the oil and persists for about three hours. Rosenberg thinks that this phenomenon is reflex. Stewart and Ferrand think, on the other hand, that it is due to the passage through the liver of the glycerin and the fatty acids formed and absorbed in the intestine. However this may be, the abundant secretion of bile and its passage through the biliary duct favor the progress of the calculus toward the intestine. This hypersecretion also cleanses the intrahepatic passages and expels the mucus, epithelial masses, and dark bile. The usual dose is one hundred and fifty or two hundred grams, taken before breakfast in the morning; a few drops of essence of anise make the oil pleasanter to take.—*Medical Record.*

UMBILICAL HÆMORRHAGE.—H. W. Lougee says that while

haemorrhage from the umbilicus generally occurs after the falling off of the cord, it may occur before or considerably after that event. Contrary to the statements of several it is not confined to ill-nourished infants, nor does it have any connection with jaundice or disease of the liver. It is probable that the blood comes from the umbilical arteries and depends upon the persistence of the foramen ovale, the arteries once more becoming pervious under the pressure of the foetal form of circulation; this would also explain the foetal character of the blood and its slight coagulability. Modern treatment has usually been unsatisfactory, and the author thinks that the older method by styptics and compression is the better. He describes a case in a child eight days old, in which he first ordered the application of equal parts of kino and alum, with compression by a folded cloth; this treatment was efficient for twenty-four hours, when the bleeding recurred; he then carefully cleaned the blood away, and made four small balls of charpie, the smallest of the size of a pea, which he saturated with liquor ferri sesqui-chloridi; the smallest he then applied directly over the navel and the others successively according to their size, binding the whole in place by strips of adhesive plaster, and above this a roller bandage. No more bleeding occurred, and at the end of a week the dressing was removed; but as cicatrization was not complete, a similar dressing was applied for a second week, at the end of which time the umbilicus was entirely healed.—*Massachusetts Medical Journal, January. 1898.*

WAR AND MEDICINE.—The call to arms has come, and now the military and naval forces are assembling to do battle in a righteous war. The United States ever faithful to the first principles which called this nation into being, stands to-day, triumphant before the civilized world as the friend of the oppressed. The naval forces, grand in their awfulness, proudly, but with becoming self-control, have already shown the world in the battle of Manila what it means to float the stars and stripes in defense of human liberty.

And as the plans for aggressive interference are being matured whereby the citizen soldier will co-operate with the nation's

regulars, we are especially struck with the consideration being given to the care of the health of the soldiers and sailors, and the humane plans for hospital relief, the fitting of hospital ships and the opening to the soldiers of the hospitals of the South are new and timely features of modern war. The hospital ship "Solace," flying the Geneva cross, will, according to international agreement, be honored as the bearer of mercy and humane care to the wounded and diseased of the naval forces. Now, by this and other means modern medicine and surgery will soon show their powers for good, by giving immediate and scientific relief to the defenders of our nation's glory. Medicine, therefore, is to bear a position in the conflict of great importance, and the gallant surgeons will always be found ready to do their duty.

The medical corps of the army and navy could be filled a hundred times over by the volunteers who have already signified their willingness to enlist, thus showing that the spirit of patriotism and of humanity, is, as ever before, one of the great and noble virtues of the true physician. While we hope that our beloved nation may not see such conflicts as have been in the past, yet come what may, we are sure in the end old glory will still be waving proudly over the best nation which God's sun ever shone upon, and that American medicine will have shown to the world that it leads in its resources, its ability and humane beliefs.—*F. P. N. in Medical Fortnightly.*

BEECHWOOD CREASOTE AND GUAIACOL VS. CREASOTE CARBONATE AND GUAIACOL CARBONATE.—During the past few years a number of physicians, among others Profs. Stoerk and Hayem, Drs. Zawadzki, Friedheim, Bourget and Wyss, have called attention to the poisonous properties of beechwood and liquid guaiacol and that large doses act as cauterants to the stomach and cause death by gastro-enteritis. Liquid guaiacol in doses of 6 grains per 2 1-5 lbs. proved fatal to rabbits (Gilbert and Maurat, C. rend. de la Soc. de Biologie). That beechwood creosote and guaiacol are by no means so harmless, as has been frequently assumed, has recently been corroborated by the investigations of Dr. W. Hesse, of Dresden, (*Deutsche Med. Woch.*)

showing that the carbonates of creosote and guaiacol are completely neutral to the mucous membrane, while beechwood creosote and guaiacol are caustic albumen-coagulating poisons.

Gilbert A. Bannatyne, M.D., M. R. C. P. Ed., Hon. Physician to the Royal Mineral Hospital and to the Royal United Hospital, Bath, in an article, entitled the "Treatment of Rheumatoid Arthritis," says in *The Edinburgh Medical Journal*, January, 1898, as follows:

Believing that the disease was due to a micro-organism, the nature of which was described in the *Lancet*, April, 1898, I was led to employ the guaiacol carbonate on account of its high eliminative powers. I believe the guaiacol carbonate to act locally on the alimentary canal before absorption, and afterwards, by favoring the elimination of the toxic albumins with which it combines. I give guaiacol carbonate in doses of 5 to 15 grains, three times a day, rapidly increased to six times, when its effect is soon marked. I also apply pure guaiacol in equal proportion with olive oil, painted on the affected joints nightly. Under this treatment I have seen rapid subsidence of symptoms and subsequent complete restoration to health, even in extremely severe cases."

DIAGNOSIS IN ABDOMINAL DISORDERS.—J. Eastman believes, with Tait, that: "Absolute accuracy of diagnosis is far from being possible; only the ignorant assert that it is, and only the fools wait for it." The late Dr. Parks, of Chicago, divided the abdominal cavity into two general divisions by means of a transverse line drawn through the umbilicus, and this, bisected by the median line, gives four compartments. The transverse line is an arbitrary separation between those tumors which grow from below upwards and those which grow from above downwards. "Below this line," says Parks, "the majority of tumors are not serious in character." Examination affords more accurate deductions. The tumors are amenable to common treatment. Mortality is not high primarily, and surgical interference gives permanent relief. The exceptions to this rule are cases of malignant tumors of the uterus and ovaries.

Above this line abdominal tumors, as a rule, are serious in

character: deductions drawn from facts observed in examinations are less accurate; operative procedure is accompanied by higher mortality, and results obtained are apt not to be permanent (exceptions of this statement are to be found in tumors of the gall bladder, cysts of the pancreas and some abscesses and cysts of the liver).

The normal shape of the organ and the manner of its attachment determine, in some degree, the character of the development and the direction of the growth. When tumors grow from above downwards we can by inspection above the transverse line note that the tumor is affected by the movements of the abdomen, unless the growth is post-peritoneal or its attachments are very firm. Enlargements of the liver or spleen can generally be made out by dipping the hand under the abrupt inner margin of these viscera. There are of course some exceptions to this rule.

—*Denver Medical Times.*

“SECRET” AND “PROPRIETARY” PREPARATIONS.—There seems to be a great misunderstanding and misuse of these two terms. Some persons use them as if they were interchangeable, and even make the word nostrum synonymous. It would appear unnecessary to say that everything that is advertised must be owned by someone, have somebody as proprietor—i.e., be “proprietary” in order to have some one to pay for the advertisement. Chairs and bicycles and cod-liver oil, if they have the distinctive name of a certain maker attached to them, are proprietary medicines. We have heard copyrighting spoken of as if it were something wrong and shameful, whereas in itself it has no ethical significance whatever. It is only a brand of the manufacturer. It is the possible secrecy of the copyrighted article, or the abuse of the method of copyrighting, that makes wrong. In reference to drugs, for example, the manufacturers may conceal the nature of the ingredients, and such things then become secrets; in this case we say it is unprofessional to use or to advertise them.—*The Philadelphia Medical Journal.*

DIGITALIS AND STRYCHNIA IN CARDIAC AFFECTIONS.—Whenever a diseased heart, which has hitherto performed its

work satisfactorily, suddenly displays vagaries of action, it should not be taken unreservedly for a sign of failing compensation. Efforts should be made to discover the cause, since the correction of injurious habits, or the removal of reflex disturbances may set the heart to rights before serious damage ensues. Should the derangement of the cardiac action threaten to produce or actually cause dilatation, then, of course, digitalis and strychnin are indicated; but, so long as compensation is intact, digitalis and allied remedies should be withheld.—*The Medical Standard.*

AN EXPLOSION OF POTASSIUM CHLORATE AND SODIUM SALICYLATE.—On April 6th a drug clerk was engaged in rubbing up in a Wedgwood mortar a mixture of two parts of potassium chlorate and one part of sodium salicylate according to a prescription, when a terrific explosion took place, shivering the mortar into a thousand pieces, hurling the drug clerk back unconscious, and with a big gash on the cheek. The sleeves of his coat were torn into shreds. The door and windows to the right and left, some forty and twenty feet away respectively, were blown out with great violence, the contents of the window being hurled into the street. The shop caught fire, which was, however, soon extinguished. The unfortunate drug clerk was said to be in a precarious condition from shock. The quantities of the drugs used, to produce so terrific an effect, are not stated.—*Canadian Pharmaceutical Journal and Gazette, May.*

MASSAGE AS AN OCCUPATION FOR THE BLIND.—Dr. A. G. Bennett, in the *Philadelphia Medical Journal* for March 5th (Journal of Eye, Ear and Throat Diseases for April), makes the suggestion that the blind, of whom the author estimates there are approximately fifty-six thousand in the United States, should be instructed in massage. In this occupation a blind person can become as skilled as one who can see, and it would open up to the blind a field in which many of them could make an honest living. Certain physical and moral requisites would be essential and a course of careful and thorough training to fit eligible applicants for such a pursuit.—*New York Medical Journal.*

DENTITION.—The views in regard to the effects of teething on the health of children have undergone a complete change. The doctors of the old school were accustomed to lay at the door of dentition most of the diseases occurring between the ages of six months and two years. At the present time many practitioners go to the other extreme, and deny that teething causes any symptoms whatever. Probably the truth lies in the happy medium, for while the importance of dentition in causing disease has doubtless in the past been greatly overestimated, yet it is true that reflex symptoms, due to teething, may arise, often of a serious nature. In *L'Independence Medicale* of January 26, M. G. Ausset gives expression to some pertinent remarks on the matter. He says : “The accidents due to dentition are both local and general.” . . . A dry, nervous, and sometimes croupy cough often accompanies dentition, and in the sickly and rachitic there may be spasms of the glottis and laryngismus stridulous. In some infants the appearance of each tooth is accompanied by a bronchial catarrh. None of these symptoms due to dentition have any special characteristic serving to distinguish them from symptoms otherwise caused, so that the diagnosis is often difficult. A few rules will, however, be of assistance. The first thing to be done is to ascertain the previous health of the child, for nine times out of ten if a healthy child, hygienically brought up, is suddenly affected by any of the above-mentioned accidents, we may affirm that they are due to dentition. Reflexes, due to dentition, begin abruptly and disappear as suddenly as they came. They are not in themselves true diseases, but they may predispose to real affections. Dentition cannot create tuberculous meningitis, but in the case of a child predisposed by heredity and by previous localizations of tuberculosis, the congestion of the meninges, induced by dentition, might create a ‘locus minoris resistentiae’ wherein the bacilli of tuberculosis would find a suitable environment for its development. It may here be said that the custom prevailing with many practitioners of lancing the gums on the slightest provocation is one that in the majority of instances does more harm than good. There are occasions when lancing is necessary and affords great relief, but its indiscriminate practice is to be greatly deprecated.—*Pediatrics*.

THE EHRLICH DIAZO REACTION.—Solution 1: Acidi sulphanilici, 5; acidi hydrochlorici pur., 50; aquæ destillatæ, 1,000. Solution 2: Potassii nitrosi, 0.5; aquæ destillatæ, 100. Take fifty cubic centimetres of solution No. 1 and one cubic centimetre of solution No. 2; add equal parts of urine, and one-eighth volume of ammonia; shake thoroughly. The rose-colored froth proves the test.—*Klempner in Medical Record.*

DR. NICHOLAS SENN has recently presented to the Newberry Library, Chicago, the library of the late Prof. Du Bois Reymond, of Berlin, Germany, consisting of 4,000 volumes and 13,000 pamphlets, mostly on the subject of physiology.

Editorial.

WAR!

After a third of a century of continuous peace, barring local riotings of small moment except in the populous centers where they occurred, due to the antagonism between capital and labor, and an occasional outbreak on the part of the "red-skins" of the once far West, that had but little effect except as concerned that sparsely settled section and the head-lines and news columns of the newspapers, this great country is at last again engaged in a repetition of the histories of all countries and nations and peoples. We may congratulate ourselves that in our entire history, a little over a hundred years, beginning with the war of the Revolution, that of 1812, the Mexican war, and the late internecine struggle, we have been more fortunate than our brothers of other continents and quarters of the globe. It is to be hoped that this is due to our greater advance in civilization, or, possibly, to our republican form of government and the greater degree of enlightenment of our whole people, who in themselves are sovereign.

While the war cloud is of considerable magnitude, yet unless other nations than the effete monarchy of the Dons become involved therein, as it has so far, so we may confidently expect that it will have but little effect upon the masses of our people; the brunt of the conflict, the heat and burden of the contest, being limited to our soldiers and sailors.

So far, our trade and commerce, foreign and domestic, have been but little interfered with. The principal excitement, stir and bustle has been in the movements of the various detachments of our regular army in

As the organization of the tobacco industry has developed since 1910, the larger organizations have been subject to more restrictive laws than smaller ones.

and all the new book service has a certain influence of
the old school. I think there are two main reasons.
Firstly there is the connection of the various C. W. books which
are now in process of translation and the teaching of
these is now just the way they are connected. In which have been
added a few more. In particular the "Gospel" has placed
on the part of a great deal of influence in a new venture as mentioned;
and the fact is apparent of the major new book series. It has been
extremely important. Our first lesson, though it is one about Jesus in pretty
good time last year.

AM NOW IN A 4TH DIVISION AND IN 12TH REGIMENT—12TH INFANTRY. ALTHOUGH A
LITTLE SLOW IN ACCORDING WITH THE 1ST DIVISION IT IS A GOOD CONSIDERATION OF THE
SITUATION IN THE COUNTRY & IN SPAIN WHICH MAKES THE "REGIMENT" NOT WORTH
MUCH TIME WITH A DIVISION AND SOON IT WILL HAVE TO DO ONE WHICH ACTUALLY
SERVING DURING OVER 100 DAYS. RECENTLY HAD A CONFERENCE WITH THE MEDICAL
DEPARTMENT & THEY TALKED OF THE NEED OF AN AMBULANCE AND THE TROOPS
WILL BE DIVIDED INTO SMALLER GROUPS FOR TRANSPORTATION AND ON
TO THE PLACES OF USE. THERE ARE ALSO SMALL GROUPS IN THE COUNTRY
WHICH WE CALL THE 1ST DIVISION & IT HAS TO DO THE SAME AS THE 1ST DIVISION
BUT IT IS NOT SO MUCH AS IT IS CONSIDERED WHICH COULD BE EXPENSIVE OF THEM.
THE 1ST & 2ND DIVISIONS & THE 1ST DIVISION WHICH HAVE BEEN ASSISTED THE
TROOPS WHICH HAVE TO DO THE TRANSPORTATION

The "TUNGEW-WEWA" of the 2nd year make their centre. They will form the "KAGI KAGI" a circular place or circle of importance. They will have "KAGI" 12' or 14' in diameter and 2' from bottom to top, said from Mr. P. " as I do ". This is East 2nd. we sing the following before hand:

* He pointed me delivered at his school by Mr. George the first Pres-
ident of a Society which was to have been called the Association of Colonists. His
audience was composed of young and simple in the advanced stage of
infancy. He said it was like the King and Queen the Doctor will give you
many account of all of the things of the world now made. He has been
desirous that in every other place there will be wisdom and discernment
among the students. In no country in the Government of certain powers, as
some of the Americans such as - India.

• "Do that will I will write in the American news," he said,

"will be substantially the following: Guard first against the abuse of drugs as a measure for the prevention of disease. It is a very common mistake to drug one's self in tropical countries while in good health. The result is that yellow fever is not prevented by that, but the stomach and other important organs are ruined and weakened. Stagnant water is also to be avoided, and when no other is found for drinking purposes it must be filtered. Spring-water is plentiful in Cuba, and it won't be hard to establish the camps near the places where it is abundant.

"The soldiers ought to have a suit of light flannel as loose as can be made, to be put on after a long march. When a man is tired and perspires it is dangerous to sit in a cool place in Cuba. Marches also are better in the mornings, because the severe sun in the afternoon is one of the causes that prepare the body to catch the tropical disease, but the most important rule of all is to keep away as much as possible from the foci of yellow fever."

Dr. Guiteras advises a severe quarantine in the American camps against all communication with large cities in which yellow fever is epidemic. After Havana is taken, for instance, the bulk of the American troops, he thinks, ought not to be quartered in the city. Their camps should be outside as long as their presence is not required for military purposes in Havana. It must always be kept in mind that isolation is the heroic remedy in an epidemic and the best preservative for the health. The Doctor also advises the men to keep their feet dry and to sleep on swinging hammocks and never on the ground.

While the main body of our army, at least for quite a time will be engaged in our Southern Seas and on the islands thereof, the other wing occupying or investing the Philippine Islands, will meet with almost similar conditions, with the disadvantage of being many thousand miles from home. The climatic conditions, topography, etc., of both seats of war peculiarly resembling each other. The following abstract from the *New York Medical Journal*, also of May 21st, may be of interest to our readers, as it has a bearing upon our forces near at home and away off in the China Seas:

"The *Lancet* for May 7th, in an article on the Spanish-American War, points out that the disembarkation of a large military force is a difficult and a formidable undertaking, especially when it has to be suddenly thrown on the lowlands of an unhealthy coast at the beginning of the worst season of the year. When, years ago, England for pressing political reason disembarked a small force for the occupation of Cyprus, which force it must be remembered consisted of seasoned soldiers inured to every kind of climatic condition, a large amount of sickness from climatic fever followed for a time in the regiments encamped there, and, as the *Lancet* says, it is only to be expected that a force landed in Cuba will undergo a similar but far worse experience. Too many persons, we would point out, because they happen to know of individuals who have gone to and fro or have lived in Cuba during the unhealthy season without harm, depreciate this danger; but they forget that it is one thing to go or to live there in-

dividually under the ordinary conditions of civilized life, and quite another thing to do so in masses under the debilitating conditions of excessive fatigue, exertion, mental excitement, and the inevitable hardships of campaigning. One encouragement, however, may be gathered from the *Lancet's* note—viz., as to the benefits which may be expected ultimately to accrue from the expedition. We are told that this dreaded Cyprus is now one of the most healthy of England's foreign stations. There can be little room for doubt that a similar result will follow the military occupation of Cuba by the United States, to the great benefit not only of Cuba itself, but of the world in general, and the Gulf States of this country in particular."

New guns, both large and small, powder of greatly increased strength, impelling with greatly increased rapidity and force, missiles of quite different material to any heretofore used, will furnish problems for study and investigation, the solution of which depends on the future. All the carefully garnered lore to be found in the text-books and treatises of past and present days may be found entirely useless; yet with good common sense, discretion and deliberate judgment, together with the advances in surgery generally, the grand march of Asepsis, and other late developments of wound treatment, we may reasonably hope that the medical staff of our volunteer forces, as well as their brethren of the regular army and the navy, will not be found wanting or inefficient in any way whatsoever.

MIDDLE TENNESSEE MEDICAL ASSOCIATION.

The meeting of this active and progressive organization at Dickson, May 19th and 20th, was most successful and satisfactory, and was held in the K. P. Hall on Main street, which was charmingly adapted for the purpose. A full attendance of the members was on hand when the meeting was called to order by the President, Dr. J. B. Murfree, of Murfreesboro, on Thursday morning, and after prayer by a minister in attendance, the first paper read was a most excellent one on—

Gastro-Enteritis of Children, by Dr. J. B. Cowan of Tullahoma, which was discussed by Dr. C. V. Stephenson, of Etna, who fully endorsed the paper, Dr. S. T. Hardison of Lewisburg, Dr. Blair of Normandy, Dr. McCreary, Dr. R. Stonestreet, Dr. E. H. Jones and Dr. Geo. H. Price, and closed by Dr. Cowan.

Squint; Its Causes and Treatment, by Dr. T. Hilliard Wood of Nashville, was discussed at some length—the full time allowed—by Dr. E. H. Jones of Murfreesboro, and the discussion closed by Dr. Wood. We hope to present this paper in full in a subsequent issue.

Asthma was the subject of the next paper, which was read by Dr. Enoch H. Jones of Murfreesboro, and was discussed by Drs. C. M. Lovell, T. H. Wood, Geo. H. Price and J. B. Cowan, and closed by the writer.

Morphine and Morality, by Dr. Barton Stone of Nashville, was a most

interesting paper, which elicited an active discussion, participated in by Drs. Hardison, Cowan, Ridings, Murfree, McCreary, C. V. Stephenson, and K. J. Sutton of Centreville.

Two Cases of Human Monstrosity reported by Dr. W. S. Scott, were discussed by Drs. Stephenson, Richardson, Price, J. E. Mathes, J. B. Cowan and J. A. Moores, the two latter reporting teratological cases seen by them.

Peri-Rectal Abscess was the title of a paper, thorough, exhaustive and logical, read by Dr. A. B. Cooke of Nashville, which brought forth an active discussion, participated in by Drs. Sheddan, McGannon, Murfree, Cowan, S. S. Crockett and D. J. Roberts, and was closed by Dr. Cooke.

Morbus Coxarius was the subject of a paper read by Dr. E. W. Ridings, who presented a very interesting case in the person of a boy about 9 years old, whom he had under treatment for two years past. During the discussion, which was participated in by Drs. Crockett, Cowan, Sheddan, and T. E. Ragsdale of Columbia, the members came forward and examined the case, Dr. Ridings closing the discussion.

Appendicitis, that has made itself so unpleasantly obtrusive, was the title of a paper by Dr. M. C. McGannon, which was discussed by Dr. Sheddan, Cowan, Crockett, Hardison and Murfree, and closed by the writer.

Urea and Its Significance, by Dr. J. M. King of Nashville, was the "piece de resistance" and "ne plus ultra" of the meeting, and was discussed by Drs. McGannon, Cowan, Crockett and Price, each one most highly commending the writer, who, at the close of his paper, made a beautiful demonstration of determining the amount of urea and nitrogenous material in the urine, by the Doremus apparatus, which was quite cheap; and its ready applicability was made so clear by the experiment that quite a number of the members present said very emphatically that they would soon add the Doremus bulb to their office fixtures.

This closed the work of as agreeable, instructive and interesting a meeting of like character as we have ever attended. The papers were short, limited to thirty minutes, at the expiration of which time, if he had not completed his paper, he was promptly and decisively rapped down by the gavel—a like treatment being meted out to all who took part in the discussions. No matter how many motions were made, or how vigorously seconded, the inexorable law of the Association was strictly carried out in every instance, a proceeding much to be commended, and it certainly gave a briskness, a vigor and an earnestness that was a marked contrast to the proceedings of similar medical organizations. Another good use to which the gavel was most indiscriminately and impressively applied was in preventing all talking, except from the one that was entitled to the floor.

The following officers were in each several instance unanimously elected:

E. W. Ridings, M.D., of Dickson, President.

S. T. Hardison, M.D., of Lewisburg, Vice-President.

Paul Clements, M.D., of Nashville, Secretary and Treasurer (re-elected).

IMPORTANT POINTS REGARDING DOSAGE.—The many detailed clinical reports received by us from your professional colleagues show:

First—That the best results are obtained by pushing Arsenauro and Mercauro to the point of toleration (keeping the patient as near that point as possible), and that this may be done without fear of stomachic disturbance.

Second—That the maximum dose varies widely in individual cases, some patients taking sixty drops three times daily before showing physiological effects, others being unable to reach even the average dose (15 drops).

Third—That when reaching the point of toleration the dose should be reduced or else stopped for twenty-four hours, then resumed with dose slightly less than the one administered when toleration point was reached.

Fourth—That it is best to administer the solution in at least 4 to 6 ozs. of water (three times daily, after meals), to begin with a small dose (say 6 or 8 drops) and gradually increase.

Finally—That though the nature of these remedies and the class of cases in which they are indicated preclude the expectation of immediate results, their persistent use seldom fails to justify their administration. The increase in number of red blood corpuscles shows the tonic effect upon the assimilative apparatus.

CHARLES ROOME PARMELE COMPANY,
36 Platt Street, N. Y.

(These are strictly ethical preparations. Send for the "big pamphlet" and see the clinical experiments of some of the best men in the profession.—ED. S. P.)

AN INTERESTING ENGRAVING.—There has just been issued a handsome engraving of an old painting of the first meeting of the Medical Society of London, which was held in 1773, and it contains portraits from life of the most prominent of the original members.

Among those represented are: Edward Jenner; William Saunders, whose work on "Diseases of the Liver" was the authority for many years; John Aiken, a noted miscellaneous writer and the publisher of a "General Biography;" William Babington, author of a "New System of Mineralogy" and one of the founders of the "Geological Society"; Thornton, author of a "Philosophy of Medicine;" Edward Bancroft, a naturalist; Robert Hooper, who published a "Medical Dictionary;" and a number of other famous men of their day.

As this was probably the first medical society on record and was the predecessor of the British Medical Society, the engraving represents an event of much interest to every member of the medical profession, and should prove an attractive addition to the walls of the office or home.

A copy will be mailed to any physician applying for it, by the proprietors of the Tongaline preparations, the Mellier Drug Company, No. 2112 Locust street, St. Louis. Don't fail to send for it. Your office can have no more handsome an ornament.

ELIXIR SIX HYPOPHOSPHITES.—The following letter from Prof. John A. Robison, M.D., President of the World's Congress of Medico-Climatology, speaks for itself:

THE WALKER-GREEN PHARM. CO.—I believe I cannot close the record of the dying year in any more fitting a manner than by writing my opinion of your quartet of Six Elixirs. They are certainly palatable, safe and efficient. As a large number of my patients are consumptives, who in addition to the use of the physiological remedies, rest, diet, exercise, air and bathing, need a good, general reconstructive agent, I have been induced to use your Elixir Six Hypophosphites in lieu of the various syrups and emulsions of hypophosphites that are in the market, because your Elixir agrees better with the digestive organs and seems to increase the general nutrition more rapidly. I have made it a rule of principle not to give testimonials except I have proven the preparation to be of undoubted value.

Yours truly,

JOHN A. ROBISON, M.D.,

Professor of General Medicine, Post-Graduate Medical School; Adjunct Professor Practice of Medicine Rush Medical College, Chicago, Ill., etc.

THE LIMIT OF TOLERATION is so quickly reached in a majority of cases where the Salicylates are given that physicians are often puzzled to find means to continue their exhibition, especially in Rheumatic conditions requiring prolonged employment. A vehicle, therefore, minimizing these adverse effects—and at the same time of particular indication in such conditions—must obviously make an ideal treatment.

Such a vehicle, the practitioner has in the Phillips' Milk of Magnesia—one of the most advantageous menstruums yet employed for this purpose, completely embodying the desirable features noted.

Mention of this would be superfluous to the profession, so generally has the preparation been used with marked success for many years in this connection; but a good thing will bear repetition of its virtues.

In conjunction with the Iodides and Bromides, Milk of Magnesia forms an equally useful association; and as the summer season is at hand, it will be well to recall that in the Gastro-Intestinal disturbances of children, this preparation ranks high as a remedial agent. It is a superior neutralizer in systemic or local hyper-acid conditions.

THE "CHUTMUCK SPECIAL" for the American Medical Association will be one of the handsomest trains ever run in the West, consisting of compartment sleeping cars, dining car, buffet car, etc., affording special accommodation for the wives and families of yourself and friends. The fare from St. Louis and return will be \$26.50; from Cairo or Memphis, \$30.50. Passengers who take the "Chutmuck Special" can return by way of another route, with opportunity of seeing the Trans-Mississippi and International Exposition at Omaha. This train is scheduled to leave St. Louis on Saturday, June 4th, at 9:15 P. M., over the Missouri Pacific and St. Louis & Iron Mountain Railroad. A special car (Pullman) will leave Nashville at 7:30 A. M., Saturday, June 4th, reaching St. Louis in time for the Chutmuck Special that evening, which will reach Denver Monday, June 6th, at 7 A. M. Special arrangements will be made for those who so desire to stop over at Colorado Springs, reaching Denver two and a half hours later. We hope this notice will reach many of our readers in time for them to avail themselves of this magnificent train, crossing the two great states of Missouri and Kansas, and going to the centre of Colorado.

A GOOD THING WHEN YOU KNOW IT.—Having been asked repeatedly by many of my old comrades who were with me in the "60's" if I were not going into the army, my reply has uniformly been: "Well, I'm no hog. In four years I got a belly-full." Those who are hungry for "refections a la Hispaniola," or thirsty for the azure circulating fluid of the haughty Dons, can have my place. I believe I had rather stay at home and enjoy life and the good things thereof, such as *Imperial Granum* in any one of the many ways in which it may be prepared. It is so good that one can never get enough no matter how hoggish he may be. It is good for the baby, it is good for the sick, as well as the well. Uncle Sam will find it a most admirable addition to the supply list of his medical purveyors. A compact, most nutritious and palatable food, it only needs to be used by sick or well to be appreciated. In cases of cholera infantum, that will soon be a prominent feature in your practice with the little ones, and in the exhaustion and prostration from cholera morbus, it will be retained by the stomach and be assimilated when other foods will fail, and it alone will serve as a complete food.

OLD REMEDY—NEW USES.—There are very many important uses for antikamnia, of which physicians, as a rule, may be uninformed. A five-grain Antikamnia Tablet prescribed for patients before starting on an outing, and this includes tourists, picknickers, bicyclers, and in fact, anybody who is out in the sun and air all day, will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. This applies equally to women on shopping tours, and especially to those who invariably come home cross and out of sorts, with a wretched

"sightseer's headache." The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten-grain dose. Every bicycle rider, after a hard run, should be advised a bath and a good rub down, and two five-grain Antikamnia Tablets on going to bed. In the morning he will awake minus the usual muscular pains, aches and soreness. As a preventive of the above conditions, antikamnia is a wonder, a charming wonder and one trial is enough to convince.

TRUE SALICYLIC ACID made from Oil of Wintergreen and its salts only should be used for internal use. The investigations of Prof. Latham (Cambridge, Eng.), confirmed by Drs. Charteris and McLennan (Univ. of Glasgow), warn the profession against the use of the artificial acid of commerce and its sodium salt. The true acid in crystals, powder and tablets in their highest type of excellence and purity are manufactured by the Wm. S. Merrell Chemical Co., of Cincinnati, and may be had from all reliable druggists. Their "Green Drug" Fluid Extracts are gems of pharmaceutical art. Do not fail to specify "Merrell" on your prescriptions, and see that worthless substitutes are not palmed off on you. If you use the preparations of the Wm. S. Merrell Chemical Co. you can always rely upon getting satisfactory results. This is the honest, sincere and positive opinion after a number of years' use.

IQUININ—*The Perfect Substitute for Quinine.*—The following is an extract from one of the many letters received by the company manufacturing this preparation:

"Have applied Iquinin in the treatment of Malarial Fever, and found it all that could be desired as a febrifuge, both pleasant to take and altogether free from the usual ill effects of the old stand-by, Sulphate Quinine."

Iquinin is approved by all physicians who have used it, and it is rapidly making a headway in the medical profession. It is dispensed for physicians only, and for convenience is put up in tablets equal in strength to three grains Quinine Sulphate.

SEWANEE MEDICAL COLLEGE.—The Medical Department of the University of the South, on the top of the Cumberland Mountain, opened its preliminary session on Thursday, May 19th, with an unusually large attendance. The regular course will begin June 16th, and from the indications justified by the large number present on the first day of the preliminary term, by that time fully one hundred or more will be found eager for the advantages offered by this school. The pure atmosphere, delightfully cool and invigorating, good water, refined society, ample accommodation for students, free from the noise, turmoil and disadvantageous attractions of a large city make it the ideal place for a student.

PURE, PLEASANT AND RELIABLE.—Will state from the experience that I have had with Peacock's Bromides, I think it far exceeds any of the bromide preparations I have ever prescribed. It is a pure preparation, pleasant to take, and with all a very reliable sedative.

Pulaski, Tenn.

J. C. ROBERTS, M.D.

"PARALDEHYD" possess many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehvd, which is an elegant preparation.

I HAVE used Seng and found it to be a most valuable stomachal tonic. It is a pleasure to recommend a remedy that truly deserves commendation.

E. M. EPSTEIN, M.D.

West Liberty, W. Va.

Reviews and Book Notices.

TREATISE ON THE DISEASES OF WOMEN, by ALEXANDER J. C. SKENE, M.D., LL.D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post Graduate Medical School; Gynecologist to Long Island College Hospital; President of the American Gynecological Society, 1887; corresponding Member of the British, Boston and Detroit Gynecological Societies; of the Royal Society of Medical and Natural Sciences of Brussels; of the Obstetrical and Gynecological Society of Paris, and of the Leipzig Obstetrical Society; Honorary Member of the Edinburg Obstetrical Society; Fellow of the New York Academy of Medicine; ex-President of the Medical Society of the county of Kings; ex-President of New York Obstetrical Society. Third edition revised and enlarged, with 290 engravings and four plates in colors. D. APPLETON & Co., New York, Publishers.

This magnificent treatise by one of America's most eminent gynecologists, bears the stamp of scholarly treatment and a practical ability to impart knowledge. It is more than any other work now in print, distinctly the reflection of the personal views and practices of its author. Therein consists its chief charm. The popular systems are in nowise systematic, being the polyglot contribution of many men, differing in principle and oftentimes

discouragingly contradictory in corollary. The work before us is the monument gradually builded by a most masterful architect, representing the accumulated experience of many methods and the results of those that are best. The "Illustrative cases" with which every subject is so adroitly elucidated is a unique and infrequent but commendable feature in medical authorship. The handsome semi-diagrammatic half-tone illustrations are new and pleasing. Photography and photo-lithography are beautifully blended in the depiction of pathological conditions and operative procedures hitherto but vaguely represented pictorially. But even a wood-cut is offered an indignity when called upon to reproduce a Peaslee needle for plastic operations on the pelvic floor. Although a singularly accurate description and illustration of Emmet's operation on the perineum so-called is given, one looks in vain for any reference to Emmet's unquestioned originality in that operation. Of the methods of Abdominal Hysterectomy, only that of Howard Kelly's is given, the cuts and description of which appeared in this journal for January, 1897. The erstwhile distinction between Cellulitis and Peritonitis, which has disappeared from all modern treatises is retained. Perhaps the strongest and most complete section is that upon Female Urinary Disorders, which is a fitting contribution of this great authority upon this usually neglected branch of gynecic disease. The author's original methods in hysterectomy by the Galvano cautery are fully set forth and luxuriously illustrated. Altogether this work comprises one of the best expositions of medical and surgical gynecology yet written.

W. D. H., JR.

DISEASES OF THE STOMACH. By Wm. W. VAN VALZAH, A.M., M.D., Professor of General Medicine and Diseases of the Digestive System in the New York Polyclinic Medical School and Hospital, and J. DOUGLAS NISBET, A.B., M.D., Adjunct Professor of General Medicine and Diseases of the Digestive System in the New York Polyclinic Medical School and Hospital. Illustrated, 8vo, cloth, pp. 674. Price, \$3.50. 1898. W. B. SAUNDERS, 925 Walnut St., Philadelphia, Pa., Publishers.

This book will be found above all a practical one. Although constituting a valuable contribution to scientific medicine, it is intended primarily as a working guide for the student and prac-

tising physician. To this end the chief attention is devoted to the most approved methods of diagnosis and treatment. As you will see, space is not wasted by an extended discourse on anatomy nor by a theoretical discussion of general pathology; but beginning with a classificatory introduction, a chapter is devoted to diagnosis and diagnostic methods and one to general medication and treatment. After this the various diseases are taken up in order and treated in a logical way, beginning with etiology, and passing through the phases of pathology, clinical description, diagnosis, differential diagnosis, prognosis, and treatment.

The methods of examination given and the apparatus recommended, while sufficient for special advanced stomach-work, are not too elaborate and complicated for the general practitioner. Indeed, the needs of the practicing physician are kept constantly in mind throughout the book.

In marked contrast to other books on the stomach the subject of treatment is presented in such a way as to leave no doubt in the reader's mind what course to pursue in a given case. Although numerous authorities are cited, the authors are perfectly clear as to what their experience has found most useful, and they do not hesitate to recommend a definite course of procedure under definite conditions.

There is an unusually complete and detailed presentation of the important subject of dietetics. The nutritive value of the various foods is fully discussed together with their special application in diseased conditions of the stomach. The diet lists for each disease are extremely full, and are so arranged that selections can readily be made to suit individual cases.

This book will prove the most practical treatise on the subject yet published, providing especially for the needs of the student and the general practitioner.

ILLUSTRATED SKIN DISEASES. An atlas and text-book with special reference to Modern Diagnosis and the most approved methods of treatment, by Wm. S. GOTTHEIL, M.D., Professor of Skin and Venereal Diseases at the New York School of Clinical Medicine; formerly Lecturer on Dermatology in the New York Polyclinic; Consulting Dermatologist to the Orphan Asylum of the Sheltering Guardian Society; Dermatologist to the Lebanon Hospital, the Northwestern and the West Side German Dispensaries, etc. 4to. (unbound).

Price, per part, \$1.00. When complete, bound in half Morocco, \$15.00. E. B. TREAT & Co., 241-243 West 23d St., New York, Publishers. Parts 1, 2 and 3.

This work will be issued in quarto portfolio, 13 in all, each containing 24 pages of quarto text with numerous formulæ, and four plates of cases from life, reproduced in colors with life-like effect, by a new photographic process. The text will be properly illustrated with numerous black and white illustrations from photographs from life, selected from the author's extensive collection taken in hospital, dispensary and private practice. While the various standard works on Dermatology have their field, the pictorial representation of the various diseases affecting the skin is of pre-eminent importance.

In this combined Atlas and Text-Book of Skin Diseases the illustrations are as true as the forms of disease presented, being obtained through the camera. The vast strides made in color-photography during the last year or so have rendered it possible to present a series of illustrations true to life; the color plates being made from color negatives directly taken from living subjects.

The author has used unusually good judgment in the selection of the cases so faithfully delineated, and his text, including formulæ, are fully in accord with the accepted knowledge of the day.

The classification and arrangement of diseases is made from a pathological standpoint, possibly the best our present knowledge affords. In the three parts received the following subjects are considered: Part I., Anatomy and Physiology of the Skin. Part II., Therapeutics of the Skin; Classification; Functional Disorders: Pruritus, Hyperidrosis, Chromidrosis, Bromidrosis. Part III., Seborrhea, Comedo, Milium, Sebaceous Cyst, Asteatosis, Erythema Simplex, Livedo, Urticaria, Prurigo and Purpura.

It is, says Prof. A. Ravagli, of Cincinnati, "an excellent and elegant work from both scientific and artistic points of view."

ATLAS AND ESSENTIALS OF PATHOLOGICAL ANATOMY. By DR. O. BOLINGER. Vol. 11. Urinary Apparatus, Sexual Organs, Nervous Sys-

tem, and Bones, with 63 colored figures upon 52 plates, and 17 illustrations in the text, pp. 232. Wm. Wood & Co., publishers, New York, 1898.

Of all the marvels of the typographical art, we have nothing in any way to compare with the beautiful plates in these series of hand-atlases Messrs. Wm. Wood & Co. have been bringing out. The illustrations of the kidneys, bladder and other organs pertaining to the urinary function and sexual apparatus, the nervous system and the bones and joints, in the various morbid conditions to which they may be subjected, are as natural as the sunshine and shadows of a summer day. The only wonder is, how can they be made so perfect! The plates, printed in colors, some of them requiring as much as twenty-one impressions of the various shades and tints to secure the proper effects, have been prepared by one of the largest and most celebrated chromolithographers in Bavaria, and their scientific faithfulness is guaranteed by the eminent medical men under whose direct supervision they have been drawn and colored.

Facing each plate, so as to give the greatest facility for study, is the description, the student without trouble having the printed description and the plate before his eyes at one and the same time.

These plates occupy a little more than half of each volume, while the latter part, in the one before us, is occupied with a very concise, yet lucid and graphic treatise on the pathological anatomy of the various organs and structures so faithfully delineated in the plates.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX.

A work of Reference for Medical Practitioners, by HERBERT W. ALLINGHAM, F.R.C.S., JAMES CANTLIE, M.A., F.R.C.S., and thirty-three other contributors, English and American. Sixteenth Year. Price, \$3.00. 1898. E. B. TREAT & Co., 241-243 West 23d St., New York, and 199 Clark St., Chicago, Publishers.

While reviewing the progress of medical science as presented by current medical literature, we have always found that there are subjects which require bringing up to date, and concerning which it is desirable to have direct information from those who by their special experience are in a position to afford it. As a result, the volumes of the *Medical Annual* abound in original

be the means of warding off death not only from a friend but themselves. It would be well to place a copy in every regimental hospital corps of our volunteer army.

A LABORATORY TEXT BOOK OF PATHOLOGY for the use of Students and Practitioners of Medicine, by HORACE J. WHITACRE, B.S., M.D., Demonstrator of Pathology in the Medical College of Ohio (University of Cincinnati). 8vo, cloth, pp. 172, with 121 illustrations. Price, \$1.50. 1897. P. BLAKISTON, Son & Co., 1012 Walnut Street. Philadelphia, Publishers.

A most excellent work, its aim, which it fully attains, being to furnish the student and practitioner with a text-book that he can have beside his microscope in the laboratory; a book that gives him a concise and accurate idea of the lesions, is brief in its text, yet omits none of the important pathological lesions, nor the mention of any part in a given tissue change.

The illustrations are most excellent, mainly from photomicrographs, but when necessary careful drawings have been resorted to. The text is full, clear and well in accordance with the most recent developments; and it will be found to be both a handy and reliable guide.

BRIEF ESSAYS ON ORTHOPÆDIC SURGERY, including a consideration of its relation to General Surgery, its future demands, and its operative as well as its mechanical aspects, with remarks on specialism, by NEWTON M. SHAFFER, M.D., Surgeon-in-Chief to the New York Orthopædic Dispensary and Hospital; Clinical Professor of Orthopædic Surgery, University of New York City (Medical Department), etc., 8vo, cloth, pp. 81. D. APPLETON & Co., 72 Fifth av., New York, Publishers. 1898.

A very neat but most excellent little volume, consisting of essays that have been given to the public during the past fourteen years in the pages of our leading medical periodicals, such as the *New York Medical Record*, *New York Medical Journal*, *Boston Medical and Surgical Journal*, including the essay read before the Orthopædic Section of the Tenth International Medical Congress, Berlin, August, 1890. The seven essays will not only be appreciated by the Orthopædic, but the general surgeon and practitioner as well.

SANDER & SONS' EUCALYPTOL EXTRACT (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas Texas, and New York, N. Y., sole agents.

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DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX.

NASHVILLE, JULY, 1898.

No. 7.

Original Communications.

THE PATHOLOGY AND DIFFERENTIAL DIAGNOSIS OF INTESTINAL OBSTRUCTION.*

BY RICHARD DOUGLAS, M.D., OF NASHVILLE.

Acute intestinal obstruction is not limited to the practice of doctors in great cities, nor is it a disease that visits alone the homes of the wealthy. The isolated country practitioner meets with it in the rounds of his duties. He finds himself confronted with a case of intestinal obstruction, and it is a serious question for him; it is not with him as it is with his more fortunate brother, the city surgeon; the one is aided by ample counsel and skilled assistants; the other stands alone, the responsibility entirely his own. The one is

*Read at the Sixty-sixth Annual Meeting of the Tennessee State Medical Society, April 12, 13 and 14, 1898.

equipped with every modern appliance, from the raw potato of Dawbarn to Murphy's complicated button. The one, if he loses his patient, it is an unobserved incident in the whirl of a great city; to the other, a death, especially after a surgical operation, means, perhaps, the criticism of the entire community. Therefore, gentlemen, the general practitioner must appreciate the importance of my brief paper, and it is from his standpoint and his interest that I wish to discuss the subject.

In the course of my remarks I hope to maintain the position that acute intestinal obstruction is first, last, and at all times, distinctly a surgical affection; if the profession could be brought to a thorough understanding of this fact, the surgeon would not then be called upon to operate simply as a last resort, his subject in a pitiable plight. Too often we find the patient with his vital powers tried by disease and depressed with opium. His intestines, already in a turmoil by irritation and reflex peristalsis, are teased almost to bursting with purgatives. This poor body, harassed by disease, is handed over to the surgeon for an operation, which, under the circumstances, partakes more of a slaughter.

In an analysis of the cases of acute obstruction, we may classify them after Greig Smith, under three heads, strangulation by bands and slits, intussusception, and volvulus. There are but few cases of acute obstruction which could not come under one of these heads.

Before this body it is unnecessary to recount all the various conditions that may give rise to obstruction, this simple pathological classification will suffice; nor is this classification entirely pathological. The history, symptomatology, and progress of the case in each of the types pursue a somewhat different course. Believing intestinal obstruction to be invariably a fatal condition if left to pursue its course or treated medicinally, our only hope for relief lies in the domain of surgery. If this assumption be granted, then we further maintain that an operation should be undertaken as soon as a diagnosis is reached. Therefore, for the welfare of our patient, our interest centers upon the question of diagnosis.

For the sake of brevity, we will consider the common symptoms of acute intestinal obstruction, attempting, as we proceed, to give those special symptoms which, in the refinement of diagnosis, in a measure enables us to differentiate the exact pathological condition causing the obstruction; and we shall approach the subject clinically. A conspicuous symptom present in every case of acute intestinal obstruction is the extreme prostration, amounting to absolute collapse at times. From the first there is great muscular weakness, anxious expression of countenance; the features pinched, the voice tremulous, and in extreme condition the patient may sink into profound collapse. The severity of the shock, while a great assistance to us in making a diagnosis of serious intra-abdominal trouble, does not indicate the amount of bowel involved; a small nuckle tightly strangulated will produce more reflex disturbance than a large loop only partially engaged. The pulse in acute intestinal obstruction is by no means diagnostic, yet it is often significant. It is usually found fast, from 110 to 130, small and thready. The temperature in all forms of acute intestinal obstruction is low, in the onset; sometimes it is sub-normal, but as time advances and the pathology is complicated with sepsis, we have elevation of the temperature, fluctuating in character. Hurried respiration, dry tongue, and great thirst are other general symptoms usually present. It may be well to remark, on account of the vomiting and diminished blood pressure, there is a marked diminution in the amount of urine secreted. In one case of my own, in which the obstruction was due to a diverticulum, the amount of urine secreted was not more than two ounces in twelve hours, a phenomenon which greatly complicated the diagnosis. Observing these general symptoms, we are impressed with the serious illness of our patient, and our attention is now directed to the special and conspicuous symptoms, the most pronounced of which is pain. Pain attends every case of acute intestinal obstruction. It is usually violent, cramping, colicky. It exacerbates but rarely intermits. It is most pronounced in obstruction from bands where the strangulation is absolute. In volvulus and intussusception the pain

is more paroxysmal, and not so severe. The site of the pain is usually in the neighborhood of the umbilicus, and not over the point of obstruction. It is unrelieved by pressure. The more sudden the attack, the more violent the pain, but as time progresses, the pain subsides, and usually before death the patient obtains entire relief.

Second in importance to pain only, is the symptom of vomiting. This distressing disturbance is present in every case of acute obstruction, and deserves close study. In strangulation by bands or diverticula it is one of the initial symptoms, and usually attends the onset of pain. After the ejection of the contents of the stomach and of the upper bowel, the matter vomited becomes brownish or yellow in color, later feculant, or stercoraceous. In volvulus and intussusception, the vomiting is not so distressing and persistent, as it is in strangulation from bands. At first the vomiting is attended with much straining and nausea, as it is largely due to nerve disturbance. Later, the act is not so frequent, and great gushes of fluid are mechanically ejected. The ceaseless vomiting adds greatly to the patient's distress and prostration, and sooner or later the matter becomes fecal. That is, provided the obstruction is not too high up, and the alimentary canal moderately full. Treves found that the average time in unmolested cases for the vomiting to assume a stercoraceous character, was about the fifth day, however, it may appear within twenty-four hours. There are many symptoms suggestive of intestinal obstruction, but feculant vomiting is alone pathognomonic. When this appears, no matter at what time, the diagnosis of intestinal occlusion can no longer be questioned. After copious vomiting, I have known patients to express decided relief and even hunger. The respiration becomes deeper and easier, showing that the distress is mechanical, due to the distention. Attaching this great importance to vomiting, as a diagnostic symptom, I think it proper to say here that we should not wait for the appearance of stercoraceous matter before we proceed to action. It may not appear at all, or if appearing, may be so late that such textural changes will have taken place in the bowels as to leave no hope

in operation. I would incidentally remark, also, that this symptom of vomiting is more easily masked than any other, by opium. A hypodermic of a quarter of a grain of morphia may allay vomiting for six hours. We should, therefore, be on our guard, in making a diagnosis when this drug has been used. Roser's statement, "the higher the obstruction in the intestinal canal, the more violent the vomiting," is in the main, correct.

The third cardinal symptom of intestinal obstruction is constipation. In strangulation by bands and in volvulus, this condition exists from the first, and is absolute. Scybalaæ may be passed, even a soft action from the bowels may occur, yet, as a rule, absolute constipation exists, unrelieved by enemas, and the symptoms are only intensified by the various drastic purgatives so frequently employed. In intussusception, the condition is different. Here we have bowel strangulation, but not absolute occlusion of the lumen of the gut. Diarrhoea is a frequent early symptom in intussusception, constipation coming on later. The appearance of blood-stained mucus stools is really the characteristic discharge from the bowels in this condition. The general symptoms detailed, and a consideration of the pain, vomiting, and constipation naturally leads us to an examination of the abdomen, and a careful study of the physical signs here elicited, will usually furnish not only all the evidence necessary for a diagnosis of intestinal obstruction, but will, in some cases, enable us to differentiate as to the cause and true pathology of the condition. Mr. Treves and others high in authority, tell us that in intestinal strangulation by bands, the abdominal muscles remain flaccid. My observation is limited to six cases of this character, and in four of these there was muscular rigidity, and in one, upon which I operated, there was decided retraction of the abdomen. In strangulation by bands, the meteorism, or distention of the abdomen, is never a conspicuous feature. In other words, we do not have great tympanitic distention. When it does appear, it is due to the consecutive peritonitis, which is the inevitable result of the unrelieved strangulation; in volvulus, however, enormous abdominal distention is an

early and conspicuous symptom. It is due largely to the accumulation of gas in the colon, the sigmoid rising to the level of the epigastrium, overlying the comparatively flaccid smaller bowel. In intussusception meteorism is also rare, appearing as in strangulation late in the case, and due either to the attendant peritonitis or to the absolute occlusion of gut. Tenderness upon pressure might, perhaps, have been mentioned while discussing pain. It is, however, of more diagnostic significance, both as to character and site of obstruction. In volvulus and strangulation by bands, there is usually near the site involved tenderness on pressure from the first. This area gradually widens, the tenderness becoming more diffuse, which fact is explained by the extension of the peritonitis. After the third day, there is usually such general peritoneal involvement that but little importance can be attached to the symptoms of tenderness. In intussusception, we have a limited area of exquisite tenderness usually well marked from the outset. In volvulus and in strangulation, the abdomen presents a symmetrical appearance, ordinarily. In one case, I observed a decided swelling to the right of the umbilicus. This tumor was dull upon percussion. The rest of the abdomen being resonant. Upon opening the abdomen, the tumor was found to be due to the accumulation of fluid in the engaged loop of the intestine. As a rule, however, there is no appreciable tumor in obstruction from either of these causes, whereas, in intussusception, a distinct tumor can be felt in about fifty per cent. of cases. Now, if, to the above facts, the personal history of the case be added, we may reach a reasonable conclusion as to the character of the obstruction we have to deal with. Strangulation by bands occurs in about one-fourth of all recorded cases. It is most usually met with in young adults, somewhat more frequent in females than in males, and if the case be carefully investigated, we can usually discover the history of some previous localized peritoneal inflammation, due to an appendicitis, typhoid or tubercular ulcer, inflamed tube or ovary, or the history of a traumatism. In one case of my own, male, aged sixty-three, typhoid fever years before was the only explanation.

Volvulus is the most infrequent of all forms of intestinal obstruction. It occurs in about one-fortieth of all cases. It occurs usually in those of advanced age; sufferers from habitual constipation, and involves, as a rule, the sigmoid flexure. Intussusception is a disease of infancy, occurring in the weak and delicate. About one-third of all cases of obstruction assume this form of invagination, and while it is most common among children, it must be appreciated that it may occur at any age. In the question of diagnosis, "the practical point," in the language of Robert Weir is, "not so much where the obstruction is, nor what it is due to, but is there an obstruction?" and it does appear to me, that an analytical study of the symptoms would in almost every case determine the matter. Perhaps the most difficult case for differentiation is acute peritonitis. In this, the history of the case, the mode of onset, the pulse, temperature and character of vomit, and diffuse tenderness, should be sufficient to draw the distinction. If we recognize the existence of an obstruction, the consideration of the inevitable pathology should spur us on to action. Strangulation by bands first obstructs the lumen of the bowel, then strangulates the circulation, gas and fluid accumulate, the walls of the bowel are thinned, the coats are softened, textural changes occur, which lead rapidly to gangrene. Furthermore, through this tissue, deprived of its vital resistance, the colon bacillus, the natural inhabitant of the bowel, easily escapes, infects the peritoneum, and general septic peritonitis follows, and death, in these cases, is not infrequently due to this cause. By the merest accident, the constricting band may give away, release the strangulated gut, yet who would dare trust a human life to so slender a hope. In three different cases have I opened the abdomen, found these adhesive bands rolled into cords as strong as shoe strings. What hope was there, save in the severance of this ligature. Death may then be expected as the inevitable result of strangulation by band or diverticula.

If one would study the mechanism of volvulus, he would accept, without hesitancy, the statement that a case of volvulus was never known to spontaneously recover. Surgical

means alone can correct the displacement. Intussusception, in its acute form, is scarcely less fatal. At least seventy per cent. of all cases die. Many authorities claim that all of them die. With such prognosis, I have only a word to say in regard to the conservative or medicinal treatment of these cases, which may be considered under four heads. Opium, purgatives, enemas, abdominal massage. In one suffering with the symptoms of acute obstruction, opium relieves pain, allays vomiting, stimulates the heart's action, increases blood pressure, overcomes the shock, and increases the secretion of urine. All of this I grant it does do, and by so doing, it completely masks every symptom of the disease, destroys our signals of danger. It soothes the patient, deceives the doctor, but does not in any form or manner, relieve the obstruction, lessen the strangulation, limit the gangrene or avert the inevitable septic peritonitis. It simply enables death, with a stealthy step, to silently but surely seize his victim. The use of opium, when intestinal obstruction is in the least suspected, cannot be too forcibly condemned. Purgatives exaggerate peristalsis, increase serous accumulation, aggravate the vomiting, tighten the stricture, but never secure the object for which they are administered—that is, free action from the bowels. Under their administration, the pathology is certainly intensified, and life is decidedly shortened. Enemas: Large irrigations per rectum with tube introduced high up, has long been a popular practice, yet there remains not one single case that can be cited where intestinal strangulation or volvulus has been relieved by this method. I cannot dismiss it without suggesting some of the dangers that attend its employment. First of all, it is wholly impracticable to pass a rectal tube beyond the sigmoid. I say this upon the authority of Mr. Treves, who tried it in one hundred cases and failed. Sudden death, after forced passage of the rectal tube, is not an infrequent accident. The bowel has been punctured, and the contents of the reservoir thrown into the peritoneal cavity. No one who has paid any attention to experimental abdominal surgery will question the liability of rupture of the gut by forced hydrostatic pressure. Viewing the con-

dition from purely a mechanical standpoint relief from a column of water which does not reach the seat of disease cannot be expected. In regard to abdominal massage, it seems such a rude, irrational practice that in the light of my limited experience, I must condemn it, yet if one would read of the gymnastics, the contortions, the somersaults, and the pummeling that even so good an authority as Johnathan Hutchinson advocates, you would say that that surgeon was determined to carry out the idea, "I will kill you if I can this way; if I can't I will operate on you, then I know I will get you." You readily understand then, gentlemen, I take the unqualified position that having diagnosed acute intestinal obstruction our invariable conduct should be to resort to celiotomy.

We should not defer operation longer than necessary to come to a reasonable diagnosis. The mortality, as has been shown by abundance of statistics, increases with the age of the case. If the operation can be undertaken within the first forty-eight hours, there is no reason why the present mortality, which is sixty per cent., should not be reduced to twenty-five or thirty, or even less. It is not my purpose to weary you with a recital of the special technique employed in the operation for intestinal obstruction, yet there are a few practical points that have been impressed upon me that I wish to emphasize. You have observed that I have made some effort to follow a classification based upon the cause and pathology in each case; perhaps a more practical classification, after all, would be based upon the condition of the patient, into suitable and unsuitable cases for operation. Assuming that the diagnosis has been made, from the nature of things not every case admits of operation; the shock may be too profound, opiates or purgatives may have wrought their destruction, toxemia from septic peritonitis may have supervened, placing the patient beyond possible hope of relief. The surgeon will be called upon to weigh all these questions with a discriminating judgment. He must feel that his first duty is to the patient. If there is a chance for life he must give that chance to the disregard of his own reputation; yet operations upon patients in a dying condition add but little to the cause of

humanity, and greatly discredit the science of surgery. In this operation the one desideratum for success is haste, breathless haste, every minute increases the shock and carries the patient nearer the grave; therefore everything should be arranged to expedite the matter. The anaesthetic chosen should be the one easiest and quickest of administration; of course chloroform is preferred. Wishing to obtain a ready access and free field for action, our abdominal incision should be in the central line. Long, unusually long incision is demanded, not less than six, usually eight inches, and if necessary, longer. Short incisions involve more intra-abdominal manipulation, and intensify the shock. We must bear in mind upon opening the cavity, that the distended coils of intestines are in close apposition to the parietal peritoneum. Unless this membrane is carefully opened the distended gut will be wounded, and its contents will escape into the cavity, which accident will almost certainly insure a fatal result. In strangulation by bands, authorities differ somewhat as to the condition of the intestines. It is my observation that the distal side of the gut is flaccid, the proximal side is only moderately distended; it is only the engaged loop that is enormously distended; the reversed peristalsis and the ceaseless vomiting has kept the proximal side moderately empty. Therefore, with this knowledge before us, if we will follow the distended gut back to its base or mesenteric attachment, we will usually discover the seat of obstruction. Dr. Frank Rand, of Liverpool, who appears to have had unusual experience, directs that the mesentery is the best guide to the seat of the obstruction. If it is followed back to its attachment it will be observed, when in the neighborhood of the involved bowel, that the mesentery is either gathered in folds or rotated upon itself. Having discovered the seat of obstruction, our further conduct depends, first, upon the condition of the patient, the character of the obstruction, and the condition of the bowel. If the obstruction admits of easy relief, say the severance of a band or reduction of a volvulus, that should, of course, be accomplished as quickly as possible. If, however, it is a case of intussusception, and the cause of obstruction difficult of

removal, we must consider our patient's condition. Is he able to undergo an operation lasting an hour? If not, then we should temporize by doing an enterostomy, and establish an artificial anus. If the gut is gangrenous, resection of this part is demanded and anastomosis with Murphy button or plate required. Of course, it is not proper here for me to dwell upon the technique, but there is just one point I will emphasize before dismissing the subject, and that it, how shall we manage the bulging, distended intestine during the operation?

After the obstruction is relieved a rectal injection of glycerine and warm water will sometimes succeed in expelling flatus and remove meteorism. Gerster, in an emergency, tried this very satisfactorily; you must not try to crowd back into the abdomen the distended coils of intestine, if they are not relieved by the enema, then draw out the most presenting coil. If small intestines, incise it transversely, allow its contents of fluid and gas to escape; then introduce your irrigator into the incision and wash out the bowel. The water, of course, escapes per anum. I am convinced that no one step is so conducive to the patient's comfort and recovery as this of relieving the intestinal distention; it permits the paralyzed bowel to recover its tone and physiological action.

ADDRESS OF WELCOME.*

BY REV. C. H. STRICKLAND, D.D., OF JACKSON.

Mr. President and Honorable Gentlemen representing the Medical Society of the great State of Tennessee: To me has been assigned the great pleasure and honor of saying a few words of welcome to you to-night before you resume your labors, the reading of your papers and the discussion of the same. When I say "welcome," I speak it from lungs well filled and well cared for by a lot of the best doctors that I ever saw, from the banks of the Savannah River to the Big Sioux in Iowa on the line of the Dakotas. I feel under profound obligations to-night to your profession, and hence my pride and pleasure in being selected to deliver

*Delivered at the Sixty-sixth Annual Meeting of the Tennessee State Medical Society, April 12, 13 and 14, 1898.

these words of welcome to our much beloved city. And we do say our beloved city, because Jackson, the capital of West Tennessee, is known for its intelligence, intelligence based upon the building of great schools, well and favorably known throughout the entire State. We welcome you to our city without hesitation and with much pride, because our citizens are law-observing people, and because of the high grade' of morality that you would find, should you take the trouble to investigate. I do not mean to say that we are all saints, that we are all religious, but I do mean to say that the city of Jackson, with its population of from sixteen to eighteen thousand people, will compare favorably with any city in all the Mississippi Valley in morality and the observance of law and order. I doubt if it is excelled in its business men in point of integrity, its professional men in rank and standing, its newspapers that disperse abroad the news of Spain and other things. Of these I speak in passing.

We welcome you to our city, to our homes and to our hearts. As you pass along our streets you will see monuments erected to the loftiest virtues known among men; and as you look upward towards the tops of those granite columns you will see evidence of the courage, of the valor, of the faithfulness of men who have lived before you and I were here and perchance have died. Your profession is one that we delight to honor. I don't remember the name of the physician, sir, who was at my birth and aided me when I stepped aboard this planet; I don't remember much about the circumstances, sir. But you are at the birth of the statesman, of the philosopher, of the female suffragist; you stand, you assist, you aid, you help into life; you start a ship on its voyage, and all along its career you are by the side to care for, to nurture, to guard and to help. And when death comes and knocks with his spear-head on the gate you are still there to soothe and wipe away the death damp. Said I not that we delighted to do you honor? Gentlemen, we, of the laymen, welcome you to Jackson because your work is a grand work, a work to relieve human suffering, to augment human happiness and to increase human longevity. I know that some may contend that these things are all ordered and all foreordained. I haven't time to-night to answer such arguments, except to say that the man who feels that all things are ordered and foreordained and fixed, is the man who never had the tooth-ache or any trouble with his eye or the knee. All good comes from the source of good, and hence I solemnly believe, and I utter the sentiments of those to whom you have ministered, many of you, for years and years, that all that is good and true in the science which you represent comes from God. He loves not to inflict pain; 'tis not His pleasure to look upon suffering and anguish and agony. Away with the thought! He inspires all that is good and true, and if it is not good and of truth to relieve human pain and human suffering, then I have misunderstood your calling and your profession entirely.

Dignity and honor belong to you; they crown your profession with a diadem that sparkles brighter than that which rests upon the brow of any

other profession of the earth. You have the entree of every home in the land. You are the custodians of the secrets of every family in the land. You are the guardians of husbands and fathers and mothers and children. Said I not truthfully that dignity and honor belong to the medical profession? Show me the man that guards my eye, that opens and shuts 30,000 times a day; show me that man that puts his hand upon my heart and tells me truthfully that there is a power there that drives seven miles of blood through veins as long every so many hours; show me the man that tells me that I have ten millions of nerves, and that each one is a sentinel to tell of approaching danger, and I will show you a man, if he is conscientious, if he is honorable, if he understands the real ethics of his profession, who stands above the fog, a true man, a tall man, sun-crowned. But he must have skill, and skill comes with study and experience. He must have patience, and tenderness, and sympathy, and gentleness, and if his touch is as soft as that of a woman, all the better and all the easier will the bitter medicine glide down the throat of his patient. And if he uses a knife, let him understand also the employment of anaesthetics, and be careful that his own nerves are as steel, not to vary the hundredth of an inch. Honorable profession! You will pardon me for saying, possibly you know, that of the thirty-three recorded miracles of the great Physician of Nazareth, twenty-four, sir, were for the relief of human suffering, thus honoring your calling, thus honoring your profession.

Then I simply want to say that I thank you for your patience in listening to me so long. Your profession is regarded as a blessing by the people at large, and it is a blessing to the race, one of the greatest known. Why, who discovered the circulation of the blood? Who was it but Jenner, among the milkmaids, that brought something of great benefit to mankind? You know what has become of Pasteur's epoch-making discovery. Years and years ago a man was laid on a table and his leg sawed off while his friends held him there. Now he is rendered unconscious and the operation done without pain. Is there nothing in this? You have courage and knowledge and self-sacrifice and self-denial. You practice much that you teach in your self-sacrifice and in your toil. But lastly (as the preacher would say), we love our doctors. We do: they are dear to our hearts; our wives and our children learn to love our doctors; frequently name our babies for them. We love them for their toil; we love them because they have given us health; we love them because of their innate worth. Have you read Dr. Ian McLaren's story of the Dr. of Drumtochty? Haven't you? Then read it; it is the finest thing I have ever read. He who had ridden to and fro through all weathers is now ready to pass away himself, and he lies there with the hand of his friend grasping his own. He thinks himself a child, thinks himself an infant almost again ready to kiss his mother, when he repeats the 23d Psalm. He says, "The Lord is my shepherd," etc., and then, at the last, his memory failed him—never had failed him before in any case that was in

his hands—and he stammered and he stammered. At last his friend suggested, and he said, "and I shall dwell in his house forever."

Gentlemen of the Medical Society of the State of Tennessee we welcome you because you are entitled to it; we welcome you because it is our delight to honor you; we welcome you to our beautiful and beloved city, that is well worthy of the honor you bestow upon it by this meeting, where every prospect pleases, and man himself is not wholly vile. (Applause.)

RESPONSE TO THE ADDRESS OF WELCOME.

BY DERRING J. ROBERTS, M.D., OF NASHVILLE.

Mr. President and Gentlemen:

After a little more than twenty-four hours sojourn in the capital of West Tennessee I have but one regret. That regret is that when your Chairman and your Committee of Arrangements selected some one to respond to such eloquent words of welcome that they had not selected the old war-horse of Tullahoma, from whose lips can flow with unmeasured tread, stanzas of poetic oratory, fitting the hearty welcome we have received. I regret that in acknowledging a welcome to West Tennessee you had not gone further, to the shadow of Lookout, which, in itself, develops eloquence and oratory; or even still beyond, into the mountain fastnesses of the Eastern portion of our State, where the very mountains themselves and the valleys develop an eloquence and an oratory as smooth flowing as their crystal streams. Yet, as this duty devolves upon me, I will do the best I can, and take to myself the consolation of another miracle of biblical lore not included in those just suggested to us, and in that I will take my refuge. When the great Healer of mankind performed one miracle he was once rebuked: "Why did you give us old wine last? Why not give us the old wine first, when our taste was acute and sharp, and then when we were drunken we could have put up with the new wine?" While you are yet drunken with the eloquence of our good friend, Dr. Strickland, I hope I will not weary you with the poor fermentation of my humble brain. (Applause.)

It is fitting that we, of the State Medical Society, should

come, in our annual pilgrimages, to Jackson. And why? Jackson has sent to us year after year some of her physicians as her representative men, who have taught us that you have men of ability here, men from whom we could learn. They have taught us another thing, that when intellectuality clashed with intellectuality, the flash of brain criticising brain, your Jackson men could receive and parry, and at the same time acknowledge that just criticism was what they always courted and were not afraid of.

It is but fitting at this eventful and momentous hour that we should come to Jackson. Now, when grim visaged war is attempting to lift aloft his front, it is but patriotic that the members of the State Medical Society should come and look upon yon granite shaft, that lifts its point higher and higher, that shows that Madison County, when last enveloped in war, sent more soldiers to the cause of the State than it had voters within its bounds. From time immemorial, when strangers visited a city, they were taken by the hand and bright spots in that city were pointed out. In the distant past they were pointed to St. Peters; London, St. Paul's Cathedral; New York, the Goddess of Liberty, enlightening the world. Go to Boston and she will show you her Commons; San Francisco will show you the Golden Gate; Knoxville, her Island Farm; at Chattanooga they will take you by the hand and bid you "Lookout." Go to the famed Bluff City, on our western confines, and they will point to the river of the world, with its majestic bridge. Go to the Capital City and they will point to you our capitol and your capitol. Come to Jackson, and what will they show you? They will show you a manufactory that makes the skewers for the world, the skewers that bind the tasteful arrangement of juicy roasts and majestic sirloins. She ships them by the car load, and the time possibly will come in the near future when the young boy or the young girl at school will be asked, Why are the names of Hickory and Jackson analogous? Why because at Jackson they make skewers of hickory. (Applause.)

We come to Jackson and we find her citizens warm-hearted, courteous, hospitable; their hospitality is as boundless as the winds of heaven and as refreshing as its rains. We come to

Jackson and we find a city indeed and in fact. One of our fellow-members told me to-day, and he is not a very old man, either, that he was in Jackson when its population numbered 1500 people; now it is between 16,000 and 18,000, a ten-fold increase in the short period of a generation. We thought we were doing very well in Nashville, where we have increased three-fold in the same length of time. We find here in Jackson that they are preparing to harness the vivid lightning to carry her citizens to busy mart, to shrine, or temple, or public hall, whether on pleasure or duty bent. We find here in Jackson all the attributes of the city in every respect. And last but not least, we find here in Jackson a true-hearted, sincere and cordial Tennessee welcome. We are proud of Jackson, and for many reasons. This section of the State has sent two of her sons of the same name to come and honor Middle Tennessee with their presence, one of whom rose to a high rank and laid it aside, "to rest under the shade of the trees;" the other, to-day, a citizen well known for his public spirit, whose record he is not ashamed to look back upon. All honor to the name of Jackson, from the first Old Hickory to the one now living in Middle Tennessee, and may this city of Jackson ever "live long and prosper."

Mr. President, I wish I could do justice to the welcome we have received. I only hope that the members of the State Medical Society, who have never been to Jackson before, will so show their feeling to this city that they will not only be glad to come again, but I hope the good citizens will be glad to see us.

NEUROTIC LITHEMIA.

BY CHARLES F. CRAIG, M.D., DANBURY, CONN.

The relation of uric acid to diseases of the nervous system is a subject which has received but very little consideration, although it is a most important one. There can be no doubt but that uric acid has an irritant action upon nerve tissue and that its deposition in the body is followed, in many cases, by symptoms which can only be referred to such action. There is a large class

of cases in which the uric acid diathesis is manifested almost entirely by clinical phenomena resulting from the injury done to the nervous system by the retention within the body of this agent, and as there is no account of this class of cases in medical literature, a short description of their characteristic symptoms may be of value.

All cases of the uric acid diathesis present some symptoms arising from the nervous system, but we will consider here only those cases in which the nervous symptoms predominate, *i. e.*, only those which would be classed as cases of nerve disease. Among the many symptoms complained of by these patients are vertigo, tinnitus aurium, persistent insomnia, neuralgia of various nerves, spinal irritation, vaso-motor disturbances and general nervousness.

Hysterical and epileptiform convulsions have been observed by some authorities, and melancholia, associated with delusions and suicidal impulses, has also been observed.

Very many patients suffering from the uric acid diathesis complain of vertigo, tinnitus aurium and insomnia. The vertigo is generally noticed only when the sufferer moves about, or changes position suddenly, when it may be so severe as to cause falling. It is generally accompanied by vaso-motor phenomena, such as flushing of the face and a sense of congestion in the head. Rarely the vertigo is noticed when the patient is sitting or standing quietly, objects around seeming suddenly to swim slowly before the eyes.

Tinnitus aurium, aside from any disease of the ear, is of frequent occurrence, being generally accompanied by a sudden dilatation of the blood-vessels of the brain and occurring at irregular intervals. The noises heard vary from a slight buzzing to a roar and some patients complain of temporary deafness in the ear affected. One of the most common symptoms spoken of by this class of patients is insomnia, varying in severity, but always troublesome and always accompanied by great general nervousness. One has but to converse with such a patient for a few moments to become convinced that the nervous system is profoundly affected, for the twitching hands, the unsteady eyes, the alternate flushing and paling of the countenance and the general air of "uncomfortableness," evidences this fact very

clearly. Vaso-motor phenomena are very prominent in these patients and examination of the urine will always reveal large amounts of calcium oxalate crystals and decreased elimination of urates. The insomnia is invariably relieved by treatment which eliminates the uric acid from the system.

Neuralgia, affecting various portions of the body and ranging in severity from a dull ache to the most severe boring and darting pains, characterize the majority of cases of what may be called "uric acid neuroses." The pain varies with the varying amount of uric acid eliminated, disappearing when elimination approaches normal and becoming more severe as elimination is interfered with. Almost every uric acid patient will complain of a certain amount of pain, but where the nervous system is chiefly affected the neuralgia is more severe and persistent.

Of the more severe nervous manifestations of the uric acid diathesis such as the symptoms attending spinal irritation and hysterical and epileptiform convulsions, little can be said, as the cases reported are few in number and the data given very imperfect.

One of the first clinical signs to strike the attention in these cases is the marked mental depression, verging almost into melancholia. The "world looks blue" to the patient, and he is troubled by vague forebodings and is unable to see a bright side to anything. So marked in some cases is this that suicide is even contemplated, as life seems to have lost all of its former sweetness and pleasure. No amount of encouragement or argument will in the least change or lessen the patient's gloomy views and it is only when the system is properly rid of the irritating uric acid compounds that any improvement can be looked for.

Regarding the treatment of the "uric acid neuroses" it may be said that it is substantially that of the uric acid diathesis in general. Plenty of out-door air and exercise, some labor or duty which will absorb the attention, thus preventing any morbid introspection, and the restriction of the diet, as laid down in our numerous treatises upon medicine, will with the help of certain medicinal measures, relieve and cure the existing condition.

Medicinally, we strive first of all, and most important of all, to aid the system in eliminating the uric acid formed. For this

purpose no remedy we have has stood so successively the test of experience as lithia, for the reason that the combination of lithia with uric acid results in the formation of a lithium urate, which is the most soluble of all the urates. In Thialion, a combination of lithium with a laxative salt, and which has recently been added to our therapeutic resources, we have a most powerful solvent of uric acid and also an efficient laxative, which adds greatly to its value. Its use in the uric acid diathesis is always followed by the most beneficial results, as the following cases will illustrate.

John B., age 30, a laborer, came to the author complaining of insomnia, occipital headache, attacks of vertigo, loss of appetite and general restlessness and nervousness. He also complained of soreness and aching in the deltoid and biceps muscles, and also in the muscles of the thigh. His work, that of a truckman, was not heavier than usual, nor did it seem to fatigue him more than it had done for months. His general appearance was good, save that he showed the lack of sleep and seemed very nervous and irritable when talking. He said that he had not slept more than two or three hours a night for two weeks. His habits were temperate in every respect. Examination of his urine showed a specific gravity of 1.036, strong acid reaction, and a heavy sediment consisting almost entirely of calcium oxalate crystals and urates. His bowels were habitually constipated.

He was put upon teaspoonful doses of Thialion in hot water after each meal for three days, and then the same dose morning and evening and told to report in two weeks. He also received directions concerning his diet. At the end of two weeks he reported as considerably better, his sleep being much improved, but being still troubled by headache and vertigo. The same treatment was persisted in for two weeks longer, at the end of which time he reported that he was sleeping soundly all night long, his headache and vertigo had ceased and his bowels were regular.

Mr. H., American, aged 42, weight 210 pounds, married, consulted me about nine weeks ago, with the following symptoms. For a long time he suffered from insomnia, together with great irritability. Usually a delightful man in his family, he

noticed himself, as did his wife also, a gradually increasing irritability. On the slightest provocation and sometimes on none at all he would break out in seemingly uncontrollable fits of passion. He became exacting and fault-finding to such a degree that living with him became a burden.

He complained of pain down his back with points of tenderness in the lower part of the spinal column. Had fits of despondency and loss of sexual desire. The bowels were fitful in their action, constipated for a week, and then loose for a day or two. Tongue coated in the morning, with capricious appetite. Urine high colored, specific gravity of 1.026 and deposit of brick dust in the vessel after standing, which it was found difficult to remove. Inability to work, especially mental effort was noticed, and being fond of using the typewriter, he found himself striking off the wrong keys, using the wrong words in trying to express himself. At times he had a shuffling gait.

These symptoms continued, gradually growing worse, till the consultation mentioned above was held. My first desire was to clean his system out of the uric acid and regulate his diet. I commenced giving him a teaspoonful of Thialion dissolved in a teacupful of hot water three times a day before meals for three days. This had the desired effect of cleaning out the bowels thoroughly and starting the bile in its natural channel.

Diet restricted to fresh vegetables and cereals, no meat allowed for a week. Then Thialion was given every morning on rising in the same dose and also $\frac{1}{10}$ grain of strychnine was directed to be taken three times a day. At the end of the week the bowels continuing loose, the dose of Thialion was reduced to one-half teaspoonful. He was allowed the ordinary food at the table, but smoking and drinking were tabooed. Improvement at this time was marked. The general symptoms gave way and at the end of two and one-half months of the Thialion treatment he had entirely recovered. In this case the nervous phenomena were markedly prominent and there is no question that when he first consulted me his condition was critical. At this date, June 1st, he says he is entirely well.

Selections.

A CLINICAL STUDY OF KRYOFINE.*—It has been some time since a new coal-tar product has attracted much attention as an antipyretic and analgetic. Such a one, however, is kryofine, a methoxy-acetic acid para-phenetidine. Attention was first called to its therapeutic value by its discoverer, Dr. Bischler, of Zurich, and it has since been used extensively in the medical clinic of Zurich University by Prof. Eichhorst, who considers it the most reliable antipyretic with which he is acquainted.

"Kryofine crystallizes from watery solutions in needles, with a melting point of 208.4° to 210.2° F. These crystals are white, and in moderate doses tasteless. In doses exceeding fifteen grains, one has, after a few moments, the sensation of chewing willow bark. It is soluble in boiling water 1 in 52, in cold water 1 in 600. It is soluble also in alcohol, ether, chloroform, and the oils in excess. The fatal dose for mice was found to be three grains, and for a medium-sized dog two hundred and one grains, death occurring by general paralysis, extreme slowing of respiration and pulse. The kidneys showed nothing pathological. In healthy human beings, large doses, up to seventy-five grains, did not cause any subjective disturbances. After doses larger than fifteen grains, however, there occasionally appeared cyanosis, lasting several hours, accompanied by diminished frequency of respiration."†

"Kryofine can be detected in the urine in from fifteen to twenty minutes, disappearing in six to eight hours."‡

During the four months of its use in the wards of the Mount Sinai Hospital kryofine proved to be an anti-pyretic of excellent

*It is by the courtesy of Dr. J. Kudisch, Dr. A. Meyer, and Dr. A. G. Gerster, of the attending staff, that we have been enabled to make use of the clinical notes.

†Centralblatt fur innere Medicin, 1897, No. 11, p. 216.

‡Deutsche medicinische Wochenschrift, 1897, No. 45.

qualities, comparing very favorably with the other coal-tar products.

It reduces temperature gradually, attaining its maximum effect in from three to six hours. As an analgesic, it has given excellent results in the treatment of headache from whatever cause. It has also proved very effectual in a number of cases of neuritis, particularly sciatica. In other cases, however, the results were negative. In relieving the malaise of acute febrile condition, nothing we have used has given such favorable results. As an hypnotic in insomnia, unaccompanied by severe pain, it has proved of undoubted value.

Kryofine reduces the pulse rate with the temperature, acting practically without cardiac depression. In only two cases of the one hundred and fifty in the series referred to below were there any collateral symptoms noticed. The first was a woman, aged nineteen years, suffering from typhoid fever, with lobar pneumonia, accompanied by severe delirium. Here, after the administration of twenty-two grains and a half in divided doses at three-hour intervals, there appeared cyanosis, cool surface, and a rapid pulse, requiring stimulation. The other was a case of far-advanced pulmonary phthisis, complicated by appendicitis, in a woman aged fifty years, in whom the debility was marked. Here, after the ingestion of fifty grains in divided doses at four-hour intervals, there appeared symptoms of collapse, which lasted two hours, but were not followed by any bad effects.

Schreiber, in *Deutsche medicinische Wochenschrift*, 1897, No. 45, reports the case of an elderly woman suffering from pulmonary phthisis in the last stages where, after the administration of moderately large doses, symptoms of collapse occurred. It is but fair to say that these were very serious cases, in which asthenia was a prominent feature, and in none of them could the depression be directly attributed to the drug itself. We should also state that, for purposes of observation, no stimulant—*i. e.*, caffeine, whisky, etc.—was combined with kryofine, whereas with phenacetine and antipyrine it was generally used. Upon the kidneys, even in cases of acute and chronic nephritis, no bad effects were observed.

The drug was used in doses ranging from two grains and a half to twenty-five grains. The usual dose was seven grains and

a half. The maximum amount administered in twenty-four hours was sixty grains. On account of its being sparingly soluble it is best given in tablets, wafers, capsules, or dry on the tongue.

The drug was administered for its antipyretic, analgesic, or hypnotic effect in a series of about one hundred and fifty cases, including typhoid fever, intestinal self-intoxication, malaria, lobar pneumonia, acute bronchitis, pleuritis sicca, pulmonary phthisis, empyema, acute and chronic endocarditis, pericarditis, septicæmia, pyæmia, acute and chronic nephritis, osteomyelitis, coxitis, post-operative septic cases, gastritis, faecal impaction, pruritis with insomnia, anæmia, hysteria, neurasthenia, neuritis, and trifacial neuralgia. Bresler, of Freiburg, claims excellent results for the preparation in a recent epidemic of influenza. The fact that kryofine was successfully used for the relief of temperature and restlessness in acute and chronic endocarditis and pericarditis, without any manifestation of depression, speaks well for the action of the drug on the heart.

The conclusions we have drawn from its rather extensive use are as follows: As an antipyretic, while not reducing the temperature so rapidly nor so markedly as the other coal-tar products, it is certainly very efficacious, at the same time being a safer remedy than the other members of the group, and its diaphoretic action being much less marked.

As an analgesic, it is at least equal to the other members of the group, with the advantage that it is sometimes effectual where the others have failed.

As a hypnotic, when insomnia is due to causes other than that of severe pain, it is of decided value, and probably superior to the other members of the group.

Appended are clinical notes of some cases in which kryofine was administered. Owing to lack of space, detailed clinical data have been omitted; but in several instances the results were so striking as to merit notice.

(a) Case of acute suppurative arthritis, general sepsis, and pericarditis in a boy aged nine years. Temperature ranging between 103° and 103.4° F. The symptoms of pericarditis were marked, but the drug did not affect the pulse. When the child

was restless at night two grains and a half of kryofine produced a quiet sleep lasting several hours. Patient recovered.

(b) Case of empyema, double lobar pneumonia, in female, aged twenty-eight years. Temperature ranging between 103.4° and 105.4° F. for four days; during this time heart action extremely poor, pulse small and weak. Extremities cold; cyanosis marked; respiration labored; restlessness and, at times, delirium extreme. Cardiac condition was not aggravated by seven grains of kryofine, and sleep followed almost every administration. Phenacetine and antipyrine were tried in comparison, but both were discontinued on account of depression. Patient recovered.

(c) Case of sacro-sciatic neuritis in a man, aged forty-two years. Kryofine in doses of five grains gave almost instant relief, and sleep for a period of three hours followed. This good result was obtained for ten days, after which time the effect of the drug was lost.—*Sidney V. Haas, M.D., and J. Bennett Morrison, M.D., Late of Mt. Sinai Hospital, in New York Medical Journal.*

CHRONIC GASTRITIS.—A report of a very severe case of gastritis was freely copied in medical journals during the year 1896, in which glycozone was successfully used.

At that time, J. W., aged 38, a blacksmith, came under my care. His illness began in 1894 with the usual symptoms of gastritis. In January, 1895, he had become so much worse that he placed himself in the hands of one of our best physicians, under whose care he continued until November of the same year, when I was consulted.

After hearing his history and the treatment given, I urged him to return to his physician, insisting that nothing more could be done. My protest was in vain.

Examination revealed an emaciated, thin and badly nourished body; his eye, skin and color, fair though pale; his temperature normal; the bowels inclined to constipation with occasional diarrhoea with white, pasty, offensive stools; the lungs, heart and kidneys healthy; the liver a trifle small.

There was no painful point and no evidence of enlargement, tumor or ulcer. He was so thin that the abdomen could be most thoroughly examined. His tongue was heavily furred, red at

the tip, indented at the edges, and the papillæ red and prominent.

He complained of being unable to take either solid or liquid food even in small quantities without causing heaviness, weight, oppression, pyrosis, eructation of gases, nausea and finally headache and vomiting.

Since 1894 these symptoms had increased in severity, the nausea never ceased and this whole array of complaints would gradually accumulate in force and energy, overwhelming his system with an attack of headache and intermittent vomiting, that would last from three to five days.

In 1895, these storms growing worse, rendered his life almost unbearable. I had been attending him about a week, when one of these attacks occurred. He had been vomiting one day before I saw him. The scene was truly pitiable. I found my poor emaciated patient in a small darkened room scarcely able to raise his head, gagging and straining constantly, bringing up finally by the greatest of efforts, a teaspoonful of white glairy mucous; his head bound tightly or wrapped in ice cloths; his eyes congested; his cheeks hollow; his skin sallow and pale; his face bespeaking the intense agony he suffered, begging and pleading to those around him for relief from the horrible nausea and retching.

I remained with him an hour and during that time he was not free for five minutes from efforts at vomiting. His sleepless, aching brain seemed racked to distraction. He would gag, vomit, and fall back exhausted.

This continued three days, gradually lessening. Sleep came only through exhaustion. Every particle of food (liquid or solid) was promptly vomited. During these attacks, the temperature was increased from 99 to 103.

These attacks were always of a similar character and from November 1, 1895, to July 3, 1806, they occurred every ten days or two weeks.

The physician who had treated him had used drugs, diets, and lavage faithfully and persistently, so that at the outset, I was completely handicapped.

I began with the remedies which had given relief in similar cases, and in turn used acids, alkalies, alteratives, pepsin, digestants, purgatives, tonics, bitters, sedatives, diets, etc., either

singly or in combination, until I had exhausted all the resources at my command.

The only perceptible relief came from the use of small doses of diluted hydrochloric acid between the attacks and a solution of cocaine and morphine during the paroxysm.

About July 3, 1896, I read the article referred to above, and in desperation and despair of ever relieving him, I ordered glycozone one-half, then one drachm, well diluted, twenty minutes before meal time.

In a few days he said he felt better; within a week he repeated the assertion. To the utter astonishment of myself and his friends, one, two, four and even six weeks passed, without a recurrence of his severe symptoms.

About August 20, he was so much improved, that to hurry matters, I concluded to try lavage again. This was done at 5 P.M. and at 10 that night he was in the throes of an attack, which lasted two days.

He then resumed his glycozone and continued to improve till October 15, when on account of inactivity of the bowels and constiveness, he was given two grains of calomel, which brought on a slight headache and considerable nausea.

He had already been taking more food, but from this time, it was increased in quantity and character, eating three fairly good meals a day, and enjoying them.

After beginning the use of glycozone, the acid was continued a few weeks, after meals, then left off entirely. No other medicine was used, except occasionally a pill of aloin, belladonna, strychnia, cascara, when bowels were sluggish.

To him glycozone proved the greatest boon, and to me, the relief given was simply wonderful.

It is useless to add, that I have used the remedy in many cases since, and have met with excellent and even astonishing results.—*L. A. Kengla, M.D., of San Francisco, in New England Medical Monthly.*

GRAY'S GLYCERINE TONIC COMPOUND.—The use of this preparation is advocated in surgery, before operation to place patient in best possible condition, thus avoiding shock; to relieve

hepatic engorgement and lessen the vomiting after ether; to thoroughly cleanse intestinal tract by the action of glycerine and taraxacum.

After operation to promote absolute rest and quiet, and the thorough assimilation of milk diet; to prevent intestinal fermentation and aid regularity in peristalsis resulting in normal stools (with Gray's Tonic in proper doses an enema is seldom required.) To allay irritation of the mucous membrane in acute or chronic catarrhal conditions.

In medicine, as a general tonic in all forms of debility from mal-nutrition, malarial infection, mal-assimilation of food, in neuroses of exanthemata; in pulmonary tuberculosis to promote digestion and forestall tubercular matter gaining foothold in the intestines; and finally to ease cough. After childbirth it is an admirable tonic for mothers and its beneficial influences are apparent from the earliest exhibition of the same.

It is acceptable alike to the most delicate or sensitive person.

Doses, adults: 2 teaspoonsful to a tablespoonful in a little water before meals, t. i. d. (or after meals when preferred.) Coughs, colds, bronchitis: Teaspoonful every two hours, clear.

Children: $\frac{1}{2}$ to 1 teaspoonful.

AMYLOLYTIC FERMENTS.—In an article on this important subject by Wyatt Wingrave, M.R.C.S., Eng. (Assistant Surgeon to the Central London Throat and Ear Hospital), in the London *Lancet*, May 7, 1898, we are informed of a personal necessity that arose in the writer's experience for a reliable starch digestant. A crucial comparative examination was therefore made of many malt extracts and of Taka-Diastase, the tests being conducted both chemically and clinically.

He summarizes briefly: 1. That Taka-Diastase is the most powerful of the starch or diastatic ferments and the most reliable since it is more rapid in its action—*i. e.*, “it will convert a larger amount (of starch) in a given time than will any other amylolytic ferment.” 2. That Taka-Diastase seems to be less retarded in its digestive action by the presence of the organic acids (butyric, lactic, acetic), and also by tea, coffee and alcohol, than are saliva and the malt extracts. This is an important point in

pyrosis. 3. That all mineral acids, hydrochloric, etc., quickly stop and permanently destroy all diastatic action if allowed sufficient time and if present in sufficient quantities. 4. That Taka-Diastase and malt diastase have, like ptyalin, no action upon cellulose (uncooked starch). All starch food should therefore be cooked to permit of the starch ferment assisting nature in this function.

THE TREATMENT OF HEMORRHOIDS, DIETTEL'S METHOD.—Dr. Zukerkandl (*Wiener medizinische Presse*) recommends Diettel's elastic ligature, after employing it with good result in two hundred and sixty-nine cases, as a simple and radical means. General anaesthesia is not necessary; the Schleich infiltration anaesthesia suffices to deaden the pain. The operation is applicable only for internal hemorrhoids with prolapse of the mucous membrane. By pressing, the patient forces the masses as far out as possible; then with a polyp forceps curved on the flat and directed by the index finger on the left hand the pedicle is grasped and the forceps are twisted to an angle of ninety degrees. The procedure develops the hemorrhoid, which is then tied off with tensely stretched elastic literatures. Three or four such ligatures are sufficient. After from eight to ten days the ligated masses necrose and fall off, leaving a clean granulating wound, which heals in as many more days.—*Medical Record*.

NIGHT SWEATS.—For the night sweats of consumption an eighth of a grain of agaricin should be given every three to five hours. Thallium acetate is recommended by Dr. Combemale in dose of one and one-half grains about an hour before going to bed. This dose should be repeated for four nights in succession, and the effect is said to last for eight to ten days. When given in 12 to 18 grain doses a day, in this author's experience, at the end of a month very sudden and extensive alopecia ensued. We are not told whether this somewhat unpleasant result was recovered from.—*Cleveland Journal of Medicine*.

HEROIC TREATMENT.—The following interesting account of bone-setting by the natives of the Congo River appears in the

new magazine, *The Wide World*. It would appear that the local white doctor could not get a fractured leg to unite, the patient being a most intractable one, but the difficulty was surmounted by one of the patient's fellow-tribesmen in the following way: He was laid on the ground on his back, and under his head was placed a box. The broken leg was then stretched straight out and covered with a little hillock of soft clay. This clay, being pressed hard down upon the leg and a fire kindled upon it, was practically turned into brick. The patient was kept in this position for over five weeks, being fed during the time by two attendants. The result is said to have been perfectly satisfactory.—*Monthly Retrospect*.

CELLULOID BANDAGES.—Celluloid has been suggested as a substitute for Plaster of Paris, its weight being less than one-fourth that of the former. It is readily cleaned, has a smooth surface, and is impervious to urine and discharges. Cut into small pieces, celluloid is dissolved in acetone. This solution is rubbed into each layer of gauze bandage or jacket, a kid glove being worn to avoid the celluloid drying on the skin. Ten layers are necessary. Three or four hours are required in drying. Small holes may be punctured for ventilation.—*Medical Record*.

SAL AMMONIAC IN TROPICAL DYSENTERY has been found effective by Attygalle (Ceylon), administered every four hours, combined in some cases with small amounts of opium and *cannabis Indica*. The blood disappeared from the charges and the colics ceased by the third or fourth day in nearly every case.—*Semaine Med.*, May 11.

THE TRENDLENBURG POSITION IN PROLAPSE OF THE FUNIS.—Dr. R. Abrehams, of New York, has just written a paper extolling the Trendelenburg position in the management of cases of prolapse of the umbilical cord. Since attention was first called to this expedient by Dr. A. Brothers, it has been tested in several cases, with the result that it had been found d-

cidedly superior to Thomas' classic treatment by placing the patient in the knee-chest position. The Trendelenburg position can be longer maintained without discomfort, it is less repulsive to the patient, and it facilitates not only the reposition of the cord, but also the performance of version.—*Philadelphia Medical Journal.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol.)—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Texas, and New York, N. Y., sole agents.

Editorial.

AMERICAN MEDICAL ASSOCIATION—THE MEETING AT DENVER.

The forty-ninth annual meeting was called to order Tuesday, June 7th, by First Vice President Dr. Joseph M. Matthews, of Louisville, the President, Dr. George M. Sternberg, Surgeon General of the United States Army, being unable to be present. The registration, which had commenced on the Saturday preceding, before the rush began, the registration clerks having become familiarized with the work, proceeded very smoothly and with but little of the usual annoyance, notwithstanding this was the second largest attendance in the Association's history, the number closely reaching to near 1,400. During the greater part of the sessions the Fourth Vice President, Dr. T. J. Happel, of Tennessee, occupied the chair, and acquitted himself most creditably, proving himself to be a parliamentarian fully equipped to preside over a body that is sometimes rather difficult to hold within the bounds of reason and legitimate debate.

The addresses of welcome were made by Gov. Adams for the State, Mayor McMurray for the city of Denver and Dr. J. W. Graham for the medical men of Colorado.

President Sternberg's address was read by Lieut-Col. A. C. Wood-hull. It recommended the admission to membership of physicians, whose State county, or district societies decline to adopt the code of ethics, but who individually would comply with the constitutional requirements.

He favored combating anti-vaccination and anti-vivisection societies, by giving the public concise and comprehensible statements suitable for publication in newspapers and popular magazines, setting forth facts accepted by well-informed physicians.

The X-rays, Pasteur's treatment of hydrophobia, the recent investigation of Loeffler and Froesch, diphtheria antitoxin, thyroid extract and thyroïdin were referred to in his address, which was scholarly and interesting.

At the conclusion of the reading of the address, the Association directed that a telegram be sent to Dr. Sternberg expressing its regret that circumstances national in character prevented his being present at the meeting in Denver, and thanking him for his very able address.

Dr. A. L. Gihon, on behalf of the Rush Monument Fund Committee, reported that in spite of the fact that, at the last meeting of the Association, held in Philadelphia, it had been decided that \$100,000 should be raised for the erection of a fitting monument to America's great patriot physician, he had so far received only \$162, or one-sixth of one per cent. of the amount pledged. This sum, together with the interest accruing on what was already on hand, had made the total increment \$312, and the total amount of the fund \$4,424.44. Colorado and New York then contributed \$2,000 each to the fund. Pennsylvania signified its willingness to contribute \$2,000 when the contract for the monument had been made; Maine added \$100; Ohio, \$336; California, \$110 and \$1,000 more at the time of commencing the actual work of erecting the monument; and Indiana reported about \$500 already collected, but desired to do still better before reporting finally. These additions, counting those given both conditionally and unconditionally, bring the total sum to \$12,460.44. Dr. Henry P. Holton, of Brattleboro, Vt., was selected as the permanent Treasurer of the fund.

Dr. Henry P. Newman, of Chicago, Treasurer of the Association, in his report congratulated the Association upon its constantly increasing growth and prosperity. The year that closed December 31, 1897, added 1,500 new members, and during the same time the Association had dropped for non-payment of dues only seventy-five members. The receipts during the time of his incumbency as Treasurer had increased from \$12,695.58 in 1894, to \$32,200 in 1897. The balance on hand, December 31, 1897, was \$14,092.85, with a sinking fund of \$3,000. The report was accepted.

Dr. J. H. Musser, of Philadelphia, delivered the address on General Medicine, which was excellently conceived and ably presented with the title of "An Essential to the Art of Medicine." Dr. J. B. Murphy, of Chicago, delivered the address on Surgery, its title being "Surgery of the Lungs." He advocated the idea of collapsing the lung by the introduction of nitrogen gas to produce rest of the tissue in phthisis pulmonalis. It was an able presentation of the possibilities of operative measures on these organs. The miscellaneous business and discussions thereon ma-

terially encroached upon the time which these two addresses by reason of their importance demanded, and they were somewhat hurriedly delivered; yet their publication in the Association journal in full will give not only the members present but the host of readers of this publication a rich treat and ample field for thought and consideration.

The President of the Board of Trustees, Dr. A. Garcelon, of Maine, congratulated the Association on its growth and prosperity. He noted with pleasure that the leading medical colleges were lengthening their curriculum of instruction. Reference was made to the growth of the *Journal* since 1883, when the experiment was first tried of publishing a weekly, to the present time. The first issue of volume one was circulated July 1, 1888, and 3,500 copies were printed, being largely in excess of the membership of the Association. At this time the membership, including both delegates and permanent members, did not exceed 1,500. For the succeeding years the growth of membership was slow, there being during 1887 only an increase of 161. Since then the membership has materially increased, as well as the general circulation of the *Journal*. The appearance and general make-up of the *Journal* are highly satisfactory. Viewed as a medical newspaper, it now undertakes to publish everything in current news that will interest the physician. The financial statement of the *Journal* for the fiscal year ending December 31, 1897, shows a balance on hand of \$14,092.85. To the report was appended an inventory of the *Journal* property. The balance in the treasury was so satisfactory that the Board directed an additional \$10,000 to be placed to the credit of the investment fund created by the Association in 1896 for the purpose of providing a permanent building for the *Journal*. In accordance with the recommendation, the Board has become an incorporated body, and has definite standing as a legal corporation. In conclusion, the Board recommends that each member make a renewed effort to increase the membership, encourage subscriptions, and extend the good influences of the Association for the advancement of medical knowledge and the general welfare of the profession.

On motion the report was ordered printed, and Dr. Garcelon was extended a vote of thanks for reading it.

The total receipts for the year ending December 31, 1897, were \$64.522.72, and the expenditures \$25,637.37; the expenses from December 31, 1897, to date, are not included, yet with the amount as known it leaves the Association in a very satisfactory financial condition, and a permanent building for the *Journal* will be soon in sight.

Dr. U. O. B. Wingate, of Milwaukee, spoke of the bill, already familiar to the profession, and outlined its salient points. (The Spooner bill). The report closed with the following resolutions:

Resolved, That the committee be continued; that the bill as now perfected and before Congress be approved, and that the committee use its best endeavors to have it passed by Congress.

Resolved, That the members do all in their power to urge upon their representatives the passage of the bill.

Resolved, That the Association appropriate the sum of \$1,000, or so much thereof as may be necessary, for the use of the committee, in the endeavor to have this measure passed.

On motion, the report was referred to the Executive Committee with power to act, and was adopted.

On the recommendation of the Executive Committee, the following resolution offered by Dr. Reynolds, of Kentucky, was adopted:

"*Resolved*, That the American Medical Association gives notice that no professor or teacher in, or any graduate of any medical college of the United States which shall after January 1, 1899, confer the degree of doctor of medicine, or receive such degree on any condition below the published standard of the Association of American Medical Colleges, shall be allowed to register as delegate or permanent member of this association." This action will prove a "love's labor lost." It contravenes constitutional privileges of regular members of the profession, and can only become operative by being regularly introduced in writing at one meeting of the Association, and adoption at a subsequent meeting one year later by a three-fourths vote of all members in attendance. The time is hardly ripe for this yet, and furthermore in one particular it is "ex post facto."

A resolution by Dr. H. A. Hare, of Pennsylvania, relative to the admission of delegates from the New York State Medical Society, and Medical Society of the County of New York, which was by the Executive Committee referred to the Association, after a spirited debate participated in by Drs. Hare of Pennsylvania, I. N. Love of Missouri, X. C. Scott of Ohio, W. P. Munn of Colorado, and Jackson and Bishop of Pennsylvania, was very properly ruled out of order by the presiding officer, Dr. Happel.

The Executive Committee favored, and the Association adopted, the button of Dr. Stone as the permanent badge of the Association. The badge is an ancient shield, with a spear-pointed cross in the center, which was a defense armor when medicine had its origin. Opposite each arm of the cross are the initial letters, "Member American Medical Association." The enamel colors are red, white and blue, typifying the nationality of the organization. Dr. Stone donated to the Association the apparatus for making the button for its exclusive use.

Dr. W. L. Wills, of California, offered an amendment to the constitution to the effect that the President, Vice Presidents, Treasurer, Librarian, Secretary, Assistant Secretary, and Chairman of the Committee of Arrangements shall be nominated by a special committee consisting of one member from each State represented at the meeting, and they shall be elected annually by vote and shall hold office until their successors are elected. (This amendment lies over for one year.)

Dr. T. J. Happel, of Tennessee, offered the following:

Resolved, That an exact time be fixed at future meetings of the Asso-

ciation by the Committee of Arrangements when the different general addresses shall be delivered, and that when that time arrives all business shall be laid aside till the addresses have been finished. (This also lies over for one year.)

Dr. C. Lester Hall offered a resolution, which was adopted, that the permanent Secretary furnish incoming Secretaries of sections with a list of names of those attending the various sections each year.

The Committee on Transportation for the next meeting consists of Drs. H. L. E. Johnson, I. N. Love, C. A. L. Reed, X. C. Scott, E. D. Ferguson and Starling Loving.

Dr. I. N. Love, of St. Louis, presented the following resolution, which was adopted:

Resolved, That the permanent Secretary be required to have the official stenographic report of the proceedings of the general sessions transcribed *verbatim* and ready for consideration and correction, if need be, each day before being adopted.

A resolution was offered and carried, that the permanent Secretary furnish a copy of the Constitution and By-laws and Code of Ethics to the proper authorities who have in charge the preparation of the programme, with instructions to print the same in the regular official programme each year hereafter.

Action was taken on amendments to the Constitution and By-laws as follows:

1. Offered by Dr. W. L. Wills: Art. IV.—Officers. Amend to read: "Each officer shall hold his appointment for one year, and until another is elected to succeed him." This was tabled.

2. Offered by Dr. H. B. Ellis: Art. IX.—Conditions for further representation. "Any State or local medical society, or other organized institution, whose rules, regulations and code of ethics agree in principle with those of this Association may be entitled to representation on the advice or agreement of the Judicial Council." This amendment also was tabled.

3. That the name of the Section on Dental and Oral Surgery be changed to that of Section on Stomatology. This was adopted.

4. Offered by Dr. L. D. Buckley: "That all new business shall be introduced not later than the third day of the session." To this amendment there were added the words, "unless there be objection," after which it was adopted.

The Nominating Committee recommended for President Dr. Joseph M. Mathews, of Louisville; First Vice-President, Dr. W. W. Keen, of Philadelphia; Second Vice-President, Dr. J. W. Graham, of Denver; Third Vice-President, Dr. H. A. West, of Galveston; Fourth Vice-President, Dr. I. N. Minney, of Topeka, Kan.; Treasurer, Dr. H. P. Newman, of Chicago; members of the board of trustees, Drs. A. Garceon, T. J. Happel, I. N. Love, and H. L. E. Johnson. Librarian, Dr. George W. Webster, of Chicago; members of the judicial council, Drs. S. S. Bailey, of Iowa; D. R. Brower, of Illinois; H. D. Didama, of New

York; D. Mason, of Washington; F. T. Rodgers, of Rhode Island; M. B. Ward, of Missouri; to fill a vacancy, W. S. Jones, of New Jersey; general address—medicine, Drs. J. C. Wilson, of Pennsylvania; surgery, Floyd W. McRae, of Georgia; State medicine, D. R. Brower, of Illinois; Chairman of Committee of Arrangements, Dr. Starling Loving, of Columbus; Assistant Secretary, Dr. E. W. Woodruff, of Columbus. The next place of meeting: Columbus, Ohio, May 7-10, 1899.

The section programmes included the titles of over six hundred papers, about two-thirds of which were read. A full list of the section officers, who were elected by the various sections, we have not yet obtained. We have been reliably informed, however, that our young and versatile townsman, Dr. W. D. Haggard, Jr., was elected Secretary of the section on Obstetrics and Diseases of Women.

A NEW CURE FOR PHTHISIS PULMONALIS.

In his address before the general session of the American Medical Association at Denver, Dr. John B. Murphy took rather a new departure in advocating surgical procedures for the relief of this disease that has so long resisted the best efforts of general medicine. A recent copy of the *Chicago Tribune* contains the following statement of the method used:

"If the consumption cure announced by Dr. J. B. Murphy, of Chicago, fulfills its brilliant promise it must be accounted among the greatest discoveries of the century. Despite the failure of Dr. Koch's supposed cure the medical profession has long been convinced that a cure for pulmonary consumption was by no means an impossibility. Dr. Murphy announced that he has discovered a simple method for such cure, and that it has proved absolutely successful in five cases within a few months. 'I can with safety say,' he announces, 'that unless the lung is entirely gone a permanent cure can be effected.' The Chicago physician's good faith and loyalty to the interests of his profession are placed beyond question by the fact that he has forthwith given his discovery to the profession and to the world without reservation.

The most hopeful feature of the Murphy cure is its simplicity and its dependence upon the normal processes of nature. It is a new and remarkable proof of the modern trend away from the use of drugs. The process is mechanical rather than medical. It is literally a 'rest cure.' Dr. Murphy's plan is merely to throw the diseased lung into a state of temporary collapse by injecting nitrogen gas into the pleural cavity. This relieves the organ from all work or exertion and stops the cough which was constantly ejecting the curative secretions poured into the lung by nature's effort at healing. During this quiescent state the pleuritic effusion or fluid is retained and floods the tract on which the bacilli are at work, cutting the disease germs off from the tissue on which they have fastened and ultimately killing them and effecting the complete cure of the patient.

This sounds reasonable, and Dr. Murphy believes he has demonstrated its practicability beyond question. Dr. Murphy has long been working on lines leading toward the use of this important fact, and he believes he has now been rewarded by the discovery of a perfectly harmless and simple method of attaining the same end with nitrogen gas. All the pain or inconvenience connected with the treatment is that attendant upon inserting a needle through the side of the patient into the pleural cavity. The nitrogen gas is injected through the needle, which is furnished with a stop-cock to regulate the amount. That is all there is to the treatment. Nature does the rest.

Upon the injection of the gas the patient feels short of breath for a few moments. This immediately disappears and is followed, in most cases, by relief, perhaps for the first time in years. The cough and the tickling which causes it disappear as if by magic. The patient is in no way inconvenienced, but can continue his usual business. After a few weeks the gas is withdrawn and the lung again expands to its usual dimensions. If the cough returns the lung is given another rest by the same method, and Dr. Murphy is positive in his statement that a cure will result. In the five cases in which he has tried it, a cure has been obtained in from four to eight weeks. One advanced case in which the patient had not slept for months on account of continual coughing yielded and gave refreshing sleep the first night after the application of nitrogen.

In the course of his earlier experiments Dr. Murphy demonstrated that an animal or person could be perfectly healthy with only one lung, providing it was a healthy lung. It is only necessary to stop the ravages of the disease to secure health to the patient, as long as any considerable fraction of the organ remains. Hence Dr. Murphy's discovery, if all his beliefs and hopes prove to be well founded, will be a reprieve from death for thousands on thousands of sufferers in all parts of the world. He announces his intention of applying his treatment at once to 230 consumptive patients in the County Hospital. The world will follow these further experiments with eager interest and if they fulfill anything like the promise now held forth, Dr. Murphy will have written his name among those of the greatest benefactors of the race.

Arrangements are now being perfected in this city to give the new treatment a thorough and impartial trial."

This looks a little too much like "you push the button and nature will do the rest." Almost too good to be true, and while it is something "most devoutly to be desired" we would be well pleased indeed that so distinguished an American surgeon should attain such enviable renown; yet—yet—yet we will wait awhile for further developments.

DOSAGE OF BETANAPHTOL-BISMUTH (ORPHOL).—For adults in gastro-intestinal catarrh, proctitis, dysentery, bacillary and choleraic diarrhoea, gastritis, typhoid fever, etc., 15 to 75 grains daily.

For children suffering from gastro-enteritis, cholera infantum, etc., from 2 to 5 grains may be given every three or four hours—according to age—with a little boiled water when the stomach is empty; or it may be administered suspended in syrup or mixed with honey.

Dr. J. C. Culbertson, in an editorial in *The Cincinnati Lancet-Clinic* of June 5, 1897, entitled "The Children," says:

"There are many cases of persistent diarrhoea in children, sometimes apparently due to a general relaxation because of the heat. Such cases may be relieved by frequent bathings in water at a temperature most agreeable to the child, accompanied by a few doses of beta-naphtol bismuth or subgallate of bismuth. These preparations of bismuth act most admirably; the former, in particular, not only exerts a soothing influence by its topical effect upon the irritated and inflamed mucous membrane, but also acts as a disinfectant."

Dr. Reynold W. Wilcox, of the New York Post-Graduate Medical School and Hospital, concludes an article in the *Medical News* with the following:

From this brief survey of the results of the administration of the newer bismuth preparations, we may conclude:

1. That the use of the organic in place of the inorganic bismuth compounds should be insisted upon.
 2. That the compounds of bismuth with beta-naphtol, phenol and tribromophenol, are remedies which produce practical intestinal antiseptics.
 3. That they are indicated in all gastro-intestinal fermentations and catarrhs until the symptoms are relieved, the dose to be determined by the severity of the symptoms.
 4. That they are non-toxic and do not give rise to untoward symptoms.
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Wm. S. MERRELL CHEMICAL Co., have long been most favorably known for the excellence and reliable character of their preparations. Their laboratories are excelled by none in the perfect character of their appointments. Their machinery and chemical apparatus are perfect in every detail; the most recently devised and the most approved type known to the chemist.

Every department is under the direct supervision of an educated and thoroughly competent associate, while their operatives—many of them in the employ of the company for more than a generation—have that perfect knowledge of their duties so necessary for the production of uniform and reliable products. Their preparations meet the wants of the best physicians, who find them economical for dispensing purposes, because more cleanly—with less precipitation in the case of fluid preparations than those of many other manufacturers. Their Fluid Hydrastis, originated by them, is bland, non-irritating and a perfect representative of the drug in fluid form. Their green drug fluid extracts, their true Salicylic Acid in

crystals and true Salicylate of Soda in powder and tablets are perfect and thoroughly reliable. Do not neglect to specify Wm. S. Merrell Chemical Co., in making your prescriptions or orders.

BLOOD INTEGRITY.—In a series of nineteen cases reported to the Section in Obstetrics and Gynaecology of the New York Academy of Medicine by Dr. C. A. Von Rabmdohr, Professor of Obstetrics in the New York Post-Graduate Medical School, the most satisfactory results were obtained by the use of Pepto-Mangan-Gude. He said: "The results as found have shown me and will convince you that it is not only possible but highly beneficial to feed a patient on such tonic immediately after an operation and during her convalescence, as a routine treatment." Of the series of cases, twelve were gynaecological, two general surgical and five medical. The improvement in the blood count was marked. He concludes the report by saying: "It is beneficial to immediately put a patient on whom an operation has been performed on the use of an easily assimilated iron preparation, and Pepto-Mangan (Gude) seems to be such a rational, ideal pharmaceutical preparation."

A case in my own hands, the subject of severe post-partum hemorrhage, is coming up more rapidly under the use of this preparation than any preceding similar case under the use of the most approved remedies.

For all cases of anemia, from any cause whatsoever, it has invariably proved most excellent.

IQUININ.—A new product of the Cinchona Bark, is rapidly making friends among the doctors, especially those having patients who cannot take quinin without suffering from the ill effects of same.

The following is an extract from one of the many letters of endorsement received by the Iquinin Chemical Company of St. Louis.

"This patient has never been able to take sulphate-quinin without suffering greatly from what might be termed the poisonous effect on the nervous system, such as dizziness, roaring noises and sick stomach. I gave the Iquinin and she did not suffer the least inconvenience or bad effect from it.

"The mild effect would be quite a desideratum in prescribing the new remedy. They afford the system the full effect of the Cinchona Alkaloids, without any of their injurious results on the stomach and nervous system."

The company also produces Laxiquinin and Toniquinin, which in conjunction with Iquinin form an ideal "Anti-malaria combination."

TRUE AMERICANISM.—Physicians and pharmacists, like the masses of the people, have tired of the arrogation of superiority implied by the announcements of foreign manufacture, and are revolting against them. This spirit is especially commendable at the present time, when a vast

wave of patriotism is rolling over the land, making the north and the south, the east and the west as one band of brothers by its magic influence. The Antikamnia Chemical Company, of St. Louis, in all of its advertising matter, whether through the journals or by circular, takes particular pains to impress upon physicians and pharmacists that its goods are made in America, by Americans, and for American use. This enterprising Company realizes that the words "made in Germany," or "made in France," no longer possess the influence and meaning they once had. The people of this country no longer scorn or underrate the products of their own native laboratories and work-shops.—*The National Druggist.*

PAPINE.—In a case of inoperable rectal carcinoma this preparation has proven a favor indeed—relieving the intolerable pains in a most marked degree without the accompanying unpleasant effects of other forms or alkaloids of opium. In such cases, and in locomotor ataxia, while it cannot offer anything of a curative value, yet for the relief of pain its use is most satisfactory.

I HAVE prescribed your Bromidia, and can recommend it as an excellent pharmaceutical preparation, since it possesses the virtue of allaying excessive nervous excitability and procuring calm, refreshing sleep.

PROF. A. ROVIGHLI,

Bologna, August 31, 1897.

University of Bologna.

THE TREATMENT OF CHOLERAIC DIARRHŒA is the title of a very excellent cloth-bound book, containing a collection of valuable *Clinical Reports*, which will be sent to you *free of all charges* if you will simply make the request by mail, addressing same to The Lambert Pharmacal Co., 21st Street and Lucas Place, St. Louis, Mo., so well and widely known as the sole manufacturers of *Listerine*.

IN prescribing the products of Manufacturing Pharmacists, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them in this issue.

MELLIN'S FOOD.—I have experimented with most of the infant foods now in the market (also with the various cream mixtures), and the only

one of them that has given me entirely satisfactory results is the preparation known as "Mellin's Food." Of course it should be thoroughly understood that none of the foods made after Liebig's formula are intended to take the place of human milk, or even cow's milk. Mellin's Food is simply a preparation for the modification of fresh cow's milk so that it may be rendered acceptable to the stomach of the infant.

D. S. MADDOX, M.D.,
In the "Cincinnati Lancet-Clinic."

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied samples of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas Texas, and New York, N. Y., sole agents.

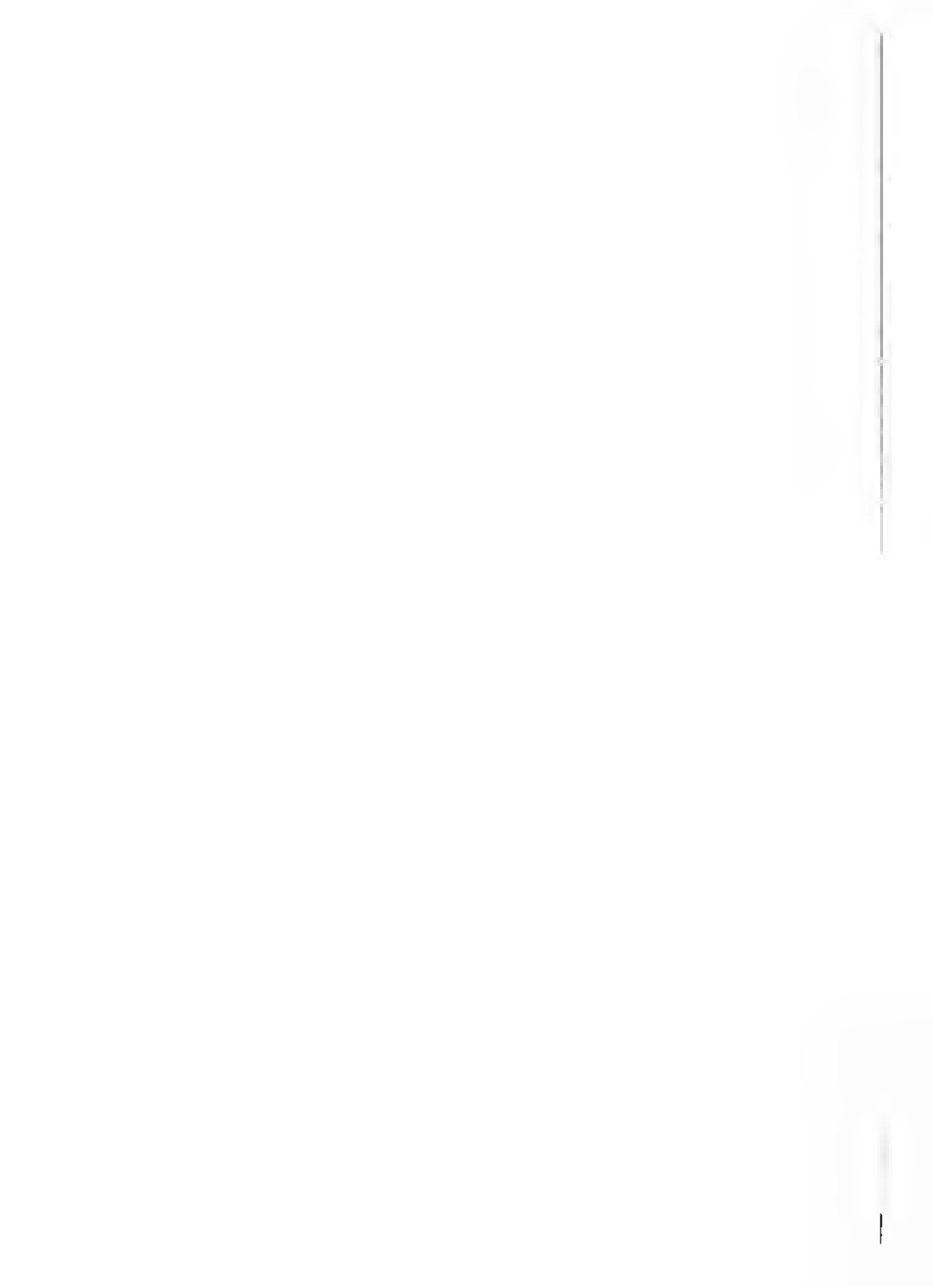
IT IS THE DESIRE OF G. W. FLAVELL & BRO., PHILADELPHIA, PA., TO EXTEND THEIR APPRECIATION TO THE MEDICAL PROFESSION FOR THE CONTINUED FAVORS FOR THEIR LINE OF GOODS BY STATING THAT THERE WILL BE NO ADVANCE IN PRICES FOR GOODS ON ACCOUNT OF ANY STAMP WAR TAX.

Reviews and Book Notices.

YELLOW FEVER. Clinical Notes by JUST TOUATRE, M.D., (Paris). Former Physician-in-Chief of the French Society Hospital, New Orleans. Member of the Board of Experts, Louisiana State Board of Health. Translated from the French by CHARLES CHASSAGNAC, M.D., President New Orleans Polyclinic. Editor New Orleans *Medical and Surgical Journal*, etc. 8vo., cloth, pp. 206. NEW ORLEANS MEDICAL AND SURGICAL JOURNAL CO., Publishers, New Orleans, La. 1898.

The work is essentially clinical and practical, making it only the more valuable. Such a complete study of the pulse and temperature in that disease has never been made before. This constitutes the chief value of the volume, elucidated as it is by nearly fifty photo-engraved charts, accompanied each by its clinical observations.

The clinical experience of Dr. Touatre for over a third of a century engaged in active practice in the Crescent City, an early



in contact with the nervous manifestations resulting from railroad and other injuries; also to the legal profession in the adjustment, prosecution, or defense of personal injury suits.

No single work has attempted, in recent years, to present in detail the enlarging views, and the deductions from them, concerning these disorders; and practical information regarding the same, in accordance with the latest accepted observation has been mostly limited to scattered monographs, principally from foreign authors.

The rush and hurry of the American people, our long lines of railroad and other transportation, our mining, manufacturing and building enterprises, in which the powers of steam and electricity and other mechanical appliances are such potent factors, make the subject of Accident and Injuries a prominent feature of both the surgeons' and the general practitioners' duties; and especially so as effecting the highly organized and delicate nervous system. It does not aspire to be a general treatise on traumatic diseases of the nervous system; but is rather an effort to present views which seem not tenable as to the part played by injury and shock in the more important of these diseases. Treatment does not properly fall within the scope indicated by the title of the work, but in a subject of such importance, the few practical suggestions submitted are timely and not out of place.

After an introduction of forty-five pages embodying a consideration of the previous history of the patient and history of the accident, physical evidences of predisposition to nervous diseases and examination for actual injury, the following subjects are considered: Parts I. and II., Organic and Functional Effects of Injury to the Nervous System; Part III., Malingering. Part IV., Treatment. Quite a number of excellent illustrations serve to elucidate the text.

A MANUAL OF GENERAL PATHOLOGY FOR STUDENTS AND PRACTITIONERS.

By WALTER SYDNEY LAZARUS-BARLOW, B.A., B.C., M.D., M.R. C.P., Late Demonstrator of Pathology and Examiner in Sanitary Science in the University of Cambridge, etc. 8vo., cloth, pp. 795. Price, \$5.00. P. BLAKISTON, Son & Co., Publishers, 1012 Walnut St., Philadelphia. 1898.

The literature of Pathology has of late years so largely in-

It is from the general practitioner that women are beginning to learn that they can receive relief. The past generations of women too frequently suffered in silence, and their daughters have learned much of the same stoicism from them. The non-medical part of the community is always behind its medical men. They are expected to enlighten it on the subject of this nature, and well-informed women have learned from the more progressive physicians that suffering is not woman's necessary lot.

Hence the family physician is consulted; and the object of this book is to place before him a clear, common-sense statement of the symptoms of the various diseases of the female sexual organs; to indicate in detail the methods of treatment that can be applied, and also to indicate in brief when the conditions require the aid of a specially trained consultant of larger experience. It is as important to be able so appreciate the need of a major operation requiring a surgeon's help as it is to know the proper remedy to apply where special advice is not required.

ATLAS OF LEGAL MEDICINE. By DR. E. VON HOFMAN, Professor of Legal Medicine and Director of Medico-Legal Institute at Vienna, edited by FREDERICK PETERSON, M.D., Clinical Professor of Mental Diseases in the Woman's Medical College of New York, etc., assisted by ALOYSIUS O. J. KELLY, M.D., Instructor in Physical Diagnosis, University of Pennsylvania, etc. Fifty-six plates in colors and 193 illustrations in black. 8vo., cloth. Price, \$3.50. W. B. SAUNDERS, Publisher, 925 Walnut St., Philadelphia, Pa.

In legal medicine, as in other branches, the demand for illustrations becomes daily more apparent, and the hand atlases published by Mr. Saunders exhibit evidences of the decided progress in this department of art. The colored plates in this volume are natural, and perfect far beyond any expectations, considering the moderate cost of the work, and enable the physician or student to become graphically acquainted with the most important occurrences of medico-legal interest. The illustrations are entirely original, and have been prepared from recent cases or from museum specimens, with the exception of a few reproduced from other publications. A volume such as this, made up chiefly of photographs and original drawings of various lesions and pathological conditions, supplies an enormous

In our last number we stated that in this "combined Atlas and Text-Book of Skin Diseases the illustrations are as true as the forms of the disease presented, being obtained through the camera." This statement is but verified in the three additional parts that have been received, and the vast strides made in color-photography during the last year or two have rendered it possible to produce a series of plates well nigh perfect. In portfolio 4, the following conditions are most ably considered: Morbilli, Rubella, Scarlatina, Variola, Vaccinia, Varicella, Lichen Planus and Ruber, Favus, Trichophytosis Capitis and Barbæ. Portfolio 5. Trichophytis Corporis, Pityriasis Rosea, Erythrasma, Phtheriasis Capitas, Vestimenti and Pubis, with Eczema. Portfolio 6. Eczema concluded, Erythema Multiforme, Herpes, Zoster, Dysidrosis, Pemphigus, Dermatitis Herpetiformis and Exfoliativa, Impetigo Contagiosa, and Psoriasis.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Volume XIV., 8vo. cloth, pp. 602. "Infectious Diseases." New York: WILLIAM WOOD & CO. 1898.

The fourteenth volume of this grand addition to medical literature of the now closing century contains a continuation of Infectious Diseases; the following special subjects and authors comprising the volume: Scarlet Fever, F. Forcheimer, of Cincinnati; Measles, Dawson Williams, of London; German Measles, Forcheimer; Chicken Pox, Dillon Brown, of New York; Glandular Fever, Dawson Williams; Whooping Cough, Joseph O'Dwyer and Nathaniel Read Norton, New York; Cholera Infantum, A. Jacobi, New York; Cholera Nostras and Asiatic, Theodore Rumpf, Hamburg; Dengue, Sir Joseph Fayrer, London; Beriberi, A. A. DeAzeredo Sodre, Rio de Janeiro; Miliary Fever, A. Netler, Paris; and Malta Fever, David Bruce, of the British Army.

A full and complete index completes the volume, which we regard as one of the most valuable of the series; which all in all, will constitute a most complete library, containing the latest accepted views from the hands of competent and well-known observers.

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DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX. NASHVILLE, AUGUST, 1898. No. 8.

Original Communications.

SQUINT—ITS CAUSES AND TREATMENT. *

BY HILLIARD WOOD, M.D., NASHVILLE, TENN.,

Professor of Diseases of the Eye, Ear, Nose and Throat, in the Sewanee Medical College, Professor of Diseases of the Eye, Ear, Nose and Throat, in the Medical Department University of Tennessee.

There are three causes of squint, as follows: 1. Errors of refraction. 2. Defects in vision. 3. Loss of balance between the recti muscles.

Hypermetropia was shown by Donders to be present in 75 per cent. of all cases of internal squint. And he further offered the true explanation of the way in which hypermetropia assisted in producing squint. This explanation is briefly as follows:

*Read Before the Middle Tennessee Medical Society at Dickson,
May 19, 1898.

Accommodation and convergence go hand in hand. When we converge the eyes to a given point, say eighteen inches away, we accommodate for the same point; the ciliary muscle governing accommodation, and the internal recti governing convergence work together. Hence in hypermetropia, where there is need for extra contraction of the ciliary muscle to correct the hypermetropia, there is also extra contraction of the internal rectus, and the eye is drawn in too much.

Whether the above be the true explanation or not, the fact remains that hypermetropia stands in a direct causative relation to internal squint. This relation is further shown by the fact that, when the squint is incipient, correcting the hypermetropia will often prevent its further development.

As hypermetropia is a cause of internal squint, so myopia is a cause of external squint; and the explanation in each case hinges on the close relation between accommodation and convergence. In myopia there is need for but little contraction of the ciliary muscle, and hence the internal rectus is correspondingly relaxed. This allows the eye to turn out, and so we have external squint.

A second reason is that in myopia an object to be seen must be held unusually close to the eyes and in the effort to maintain this high degree of convergence, the internal rectus becomes exhausted, and so the eye diverges.

Defects in vision are prominent as a cause of squint, both internal and external; and their method of causing the squint is by preventing a good view of the object, they deprive the eye of the power of fixation, and so allow it to wander in or out, according to the relative predominance of the internal or external rectus muscle. These defects in vision may be either congenital or acquired. Among the congenital defects may be mentioned absence of development of the optic nerve, central scotoma and cataract. Among acquired defects we have most prominent corneal opacities due usually to purulent inflammations of the conjunctiva.

Defective vision is so common in a crossed eye that it is rare to find it absent. While there is much difference of opinion as to whether squint impairs vision, I believe all agree that impaired vision is a factor in causing squint.

Defective vision is only important in producing squint in early life, before the muscles of the eyes have become educated, and those of one eye co-ordinated with those of the other. In after life, when co-ordination has become established, one eye may become blind and yet follow accurately in its movements the other eye. This we see, for example, in senile cataract.

The impaired vision, when due to congenital defects of the fundus, and limited to one eye, is usually not discovered until the development of squint leads to an examination. It is remarkable how easily the defective vision in one eye is overlooked, especially in children, so long as the other eye is normal. Within the past few weeks I have seen two cases, both little girls, in each of whom one eye was practically blind, and in one case evidently had been so from birth, and yet no one had been aware of any serious defect in vision in either case. Such cases are not so rare, and in them we have, often unobserved, a powerful cause of squint, in defective vision.

The close relation between defective vision and squint was shown by a recent examination of the eyes of the children in the Tennessee School for the Blind. In these children squint was frequently met with. The importance of this cause is further shown by the fact that where both eyes have defective vision the squint is found in the eye most defective.

The third cause of squint is loss of balance between the internal and external recti muscles, the eye deviating in the direction of the relatively stronger muscle. The importance of this cause was formerly much exaggerated, recently it has been too much underrated. It is one of the three great causes of squint, but in my opinion is the least important of the three. It is true that after an eye has been crossed for years the contracted muscle becomes stronger and the stretched muscle becomes weaker; but this is in part due to the squint, and follows the squint in its development.

Loss of muscular balance, occurring in an otherwise healthy eye, will produce the various phorias, with their attendant symptoms, but rarely causes squint. However, if this loss of muscular balance is united with, either errors of refraction or defective vision, or both, squint most usually results.

Treatment—The treatment of squint requires first the re-

moval, so far as possible, of the cause. If there is an error of refraction, whether hypermetropia, myopia or astigmatism, this should be corrected by suitably adjusted glasses. In case the squint is incipient, these glasses will occasionally prevent its development; and the treatment then requires nothing more than the continuous use of the correcting glasses. However, while glasses will occasionally prevent squint, I believe they will seldom or never cure it when once developed.

Defects in vision should, when possible, be removed. Cataracts can usually be extracted, and the injury from corneal opacities can often be lessened by iridectomy. But many of these defects in vision are incurable, such as lesions of the optic nerve, and scotomas.

The curative treatment for squint requires an operation upon the recti muscles. Division of the tendon of the contracted muscle is the simplest form of this treatment. Such a division will usually displace the arc of movement of the eye some 10 or 12 degrees in the opposite direction; so that when the squint amounts to not more than 12 degrees simple tenotomy will usually suffice for its correction.

When the squint amounts, as it usually does, to more than 12 degrees there are open to us three methods of procedure, as follows:

1. To divide the tendon of the contracted muscle and so correct some 10 or 12 degrees, and after waiting a few weeks, to re-divide the same tendon and so increase the effect; and if necessary, after another delay, divide it yet a third time. This plan cannot, I believe, be too strongly condemned; for while it may, after a fashion, straighten the eye, yet the repeated operations so weaken the divided muscle that it is practically paralyzed; and in fact the eye often ultimately deviates in the opposite direction; so that the last state of that eye is worse than the first. These repeated tenotomies add nothing to the power of the ocular muscles, but in fact weaken the sum total of their strength, and for that reason should be discarded.

2. The second method is to divide the contracted muscle and either immediately or after an interval of two to four weeks, to divide the tendon of the corresponding muscle of the opposite eye, combined, if need be, with advancement of the latter's

antagonist. This divides the effect between the two eyes, and in truth this plan has much to recommend it. The laity will often ask "why operate on the straight eye?" The answer is that though only one eye is crossed, yet both eyes are at fault, and that the condition of being crossed is a relative one, and therefore both eyes should share in the treatment. This plan is not only plausible in theory, but in practice will often work with satisfaction. But while it will straighten the eye, and give a good cosmetic effect, yet it too takes from, instead of adding to the sum total of the strength of the ocular muscles.

3. The third, and according to my experience, much the best plan of correcting these high degrees of squint is to divide the tendon of the contracted muscle and at the same time, advance the insertion of the opposite muscle.

In this procedure the tenotomy of the contracted muscle is done first, and immediately the tendon of the opposite or over-stretched muscle is advanced, the degree of advancement being graduated so as to fully correct all remaining squint. In fact, I have found by experience that it is best to slightly over correct the squint, say by 2 or 3 degrees, for the immediate effect will exceed by this amount the permanent result.

By this method the operation is confined to one eye, and usually the whole treatment is comprised in one operation. Another great advantage of this method is that, as you proceed, you can see the effect of each individual step, and can gauge the result with a precision that can scarcely be attained by any other method. Moreover, it is in those extreme degrees of squint, which are so difficult to manage by any other method, that the superiority of this plan is so easily seen. I regard this as the method *par excellence* when the squint amounts to more than 20 degrees. Indeed many of the best results I have ever seen in the treatment of squint have been in extreme cases, where the deviation amounted to more than 40 degrees, treated by this method. By this operation the contracted and too strong muscle is weakened, and its stretched and weakened antagonist is made stronger. Thus at the same time that the eye is straightened, the muscular balance is adjusted, and the sum total of the strength of the ocular muscles is in no way lessened.

CONSERVATIVE MANAGEMENT OF UTERINE INFLAMMATION AND DISPLACEMENTS.*

BY I. A. M'SWAIN, M.D., PARIS, TENN.

Two motives prompt the writer of this paper. One is, to encourage the general practitioner to increased confidence in his ability to treat the conditions implied in the title, take an inventory of his own resources, and apply them with more diligence. The other is to discourage mutilation by surgical interference of the female genital organs, at least until local and general medicinal treatment shall have failed to give relief after the most careful and patient trial.

Hence, we use the word "conservative" in its best sense---to preserve entire an organ or structure, to protect from injury, to prevent waste, loss or mutilation, etc.

For the past decade or two the literature on the subject of uterine disorders has been so much inclined to favor operative procedures, even in the simplest forms of these diseases and displacements, that a great number of general practitioners have grown rather indifferent in their management of such cases, and have come to refer them all to the gynecologist for operation. To by far the greater number of patients, especially those living in small towns and in the rural districts, this means no treatment, for either limited means or the demands of home life, preclude the possibility of the services of a specialist, or a stay in an infirmary, and even if these disabilities were removed, many women prefer to suffer than leave home for treatment, and most naturally would choose her own family physician in this delicate relationship.

We make no war with the specialist; on the contrary, we honor those who, by constant research on one line of practice, are able to invent and apply measures in advance of the

*Read at the Tennessee State Medical Society, held at Jackson, on April 11, 12 and 13, 1898.

common thought, and thus become teachers and pioneers in our art, and who by improved methods of technique, are able to operate with success on cases hitherto considered as hopeless, and overcome barriers regarded by our forefathers as insurmountable.

But while this is true, we insist that the day of the general practitioner has not passed. To the masses he still sustains the relationship of physician, surgeon, obstetrician, and gynecologist, and to whom the people composing his clientele will look as their only deliverer when in the race of life they fall by the wayside victims of misfortune and disease.

Etiology---Diseases and displacements of the uterus are often not purely local, but local manifestations of constitutional disorders, or of disease or derangement of proximal organs or structures.

Tubercular and syphilitic infection, rheumatic and gouty condition, general debility and anemia may be predisposing causes.

Heredity is also an important factor. Whole families of women suffer in a similar way.

The displaced womb may be only a part of a vast hernia of the pelvic viscera making a descent in various degrees through the pelvic outlet. Because of this more or less general enteroptosis, the most skillfully performed operations that look to the restoration of the uterus alone, can but result in failure.

Dilatation of the stomach, hepatic and splenic enlargements, the growth of tumors or constipation may contribute to these troubles.

The demands of modern society, dress, lacing, the uncomfortable load of skirts fastened around the waist, are a fruitful source of uterine disorders.

But by far the greater number of these cases owe their origin to negligence or ignorance during parturition or to exposure and bad treatment succeeding labors and abortions.

Non-observance by the attendant of the rules of antiseptic midwifery, failure to recognize and immediately repair injuries of the birth canal or perineum.

Another ancestor of these woes is gonorrhoea, not among

prostitutes alone, but in homes where chastity and virtue apparently sits enshrined, but in an evil hour the subtle serpent, with tactics the same as those in Eden, has this time decoyed the man, who has added physical injury to perfidy by communicating to his trusting and confiding wife the germs of a loathsome disease. Sub-involution is catalogued as a cause, but it is more often an effect. This condition per se, is often caused by a sub-acute or chronic endometritis and more or less interstitial inflammation and plastic exudation, resulting in increased weight of the organ, and as a consequence, flexion or version easily follows.

Or in the puerperal woman, too soon after delivery, gets up and assumes her household duties, thus exposing her womb to many sources of infection, which cause inflammation, and the relaxed condition of the supporting ligaments of the womb, and also of the vaginal walls and perineum, render displacements almost inevitable. A flexed womb, or one retroverted, is in no position for drainage, and by retention of secretions, provokes or perpetuates an inflammatory process.

Diagnosis---This is of first importance and a most difficult task.

From time immemorial there has existed false notions of so-called modesty in regard to genital diseases. Most women consult a physician readily enough, and expect him to prescribe some medicine for their aliments, but decline to submit to an examination. Some doctors go on and prescribe for supposed uterine disorders, never proposing an examination. It is hard to tell which of the two are most to be censured—a woman expecting to be cured of a disease without letting her ailment be known, or a doctor proposing to treat a condition about which he knows nothing.

Examinations should be instituted with deliberation, but with a determined purpose to elucidate the facts. They should be conducted in a chaste and dignified manner, with as little embarrassment as possible, and without needless exposure of the woman's person, and with due regard to cleanliness and antiseptic precautions. The bowels and bladder should be previously evacuated, the patient clothed in a loose wrapper

or gown and placed in an easy and comfortable position on a firm bed.

By an examination we should desire to ascertain the presence or absence of inflammatory disorders, the condition of the perineum, the tenacity of the vaginal walls, whether there has previously existed pelvic inflammation, and if so the nature and extent of the exudates or adhesions; the presence or absence of pregnancy, the size of the uterus, the length of the cervix, the condition of the ovaries, tubes, and ligaments, whether there be any displacement of the organs, and if so, their direction and extent. Also, whether the flexion, prolapse, or version be due in whole or in part to the presence of tumors or enlargement of any other abdominal organ, or is accompanied with prolapse or displacement of the bladder, vagina, rectum, or kidney. Also, whether there be fistulous openings, cervical rents or abrasions, ulcers, excoriations or cancer.

Methods of making examination and instruments needed are all described in any standard text book on gynecology, and need not be discussed here. We only wish to emphasize the imperative necessity of accuracy in diagnosis. A failure in this regard will most surely result in unsatisfactory treatment.

Uterine inflammation and displacements mutually depend on each other, and very often exist together in the same patient. An inflamed sub-involved or hyperplastic condition of the womb is liable to become prolapsed or retroverted, while a retroflexed womb, from want of drainage, thus retaining the secretions, is liable to become inflamed. A prolapsed or retroverted womb seriously interferes with proper circulation, and predisposes to congestion and inflammation.

To add to this is the law of gravitation. The intestines being freely movable in the abdominal cavity, by degrees slip down into the place made vacant by the descent of the womb. As mentioned above, other important viscera may be misplaced.

The writer has now under treatment two cases where exist prolapsus and retroversion, inguinal hernia, and a misplaced kidney. In both there is also a chronic endo-metritis.

In the treatment of malpositions and inflammatory processes of the uterus, two leading indications are obvious, viz.: Reduce existing inflammation and overcome, if possible, the evils resulting therefrom, and restore the womb to its normal position in the pelvic cavity. To accomplish these purposes we shall offer a few general suggestions.

Many of the apparent difficulties in the treatment of these diseases would disappear if the physician would keep in mind the fact that the same rules apply here as in the treatment of other catarrhal inflammations.

1st. The first essential is rest. The patient must be put in bed, and kept quiet, both in body and mind. Especially is this indispensable in all acute cases.

2d. Cleanliness. This implies antiseptic precautions on the part of physician and nurse, bed and surroundings. Then approach the disease much as you would any other sore--that is, cleanse it.

To do this you must get in contact with the diseased surface, and this requires dilatation of the os and cervix. If they are not sufficiently patulous and open (which they will be in most cases), proceed to anaesthetize the woman and dilate well with a steel dilator. We have no patience with the slow method of dilating with tents or bougies.

Then with a curette remove every particle of foreign substance, such as pieces of placenta, shreds of membrane, clots of blood and foul and irritating discharges. The choice of a sharp or dull curette will depend on the condition of the parts. Due care must be exercised in the use of the instrument, as like all other potent agents, the curette may produce mischief. Previous to its use, the vagina should be well irrigated, and rendered aseptic.

After curettage thoroughly irrigate the uterine cavity with sterile water, into which, in proper percentage, one of the non-toxic antiseptics should be used.

Bichloride of mercury or carbolic acid should not be used, or if at all, should be greatly diluted. Other drugs, such as lysol, creoline, permangaante potash, hydrogen dioxide, in proper solutions, or the comp. tr. iodine, one ounce to the

quart of water, are all admirable preparations for this purpose, and are free from danger. The irrigation may be done from a fountain syringe, or what is preferable, a clean bucket and the Columbia douche. To the rubber tubing, a uterine irrigator is easily attached. A sufficient amount of the antiseptic solution should be used to wash out thoroughly the debris, and leave a clean surface.

Not every case will require the curette, but there are few, if any cases of endo-metritis that thorough irrigation is not required.

Having cleansed the organ, local applications are in order. They may be astringent, antiseptic, alterative or soothing, or corrosive, depending upon the nature of the morbid process. Of these there is quite a long list to choose from. We mention only a few. Perhaps one of the best combinations is equal parts of comp. tr. iodine, glycerine and F. E. witch hazel, or carbolic acid and tr. iodine. Among the newer preparations are europhen and aristol, suspended in alboline, have a soothing and antiseptic effect. There may be cases in which fuming nit. acid or chloride of zinc is needed, but they are few, and milder preparations should have preference.

3d. The third important step is drainage. This may be done by inserting a drainage tube or strip of gauze, carried through the internal os, and left in position. Close packing should never be done merely to secure drainage.

Another important factor in securing drainage is to straighten the canal. A womb that is verted or flexed cannot drain. Hence, if there is a malposition we must restore it, as a necessary part of the treatment of inflammatory conditions.

This is best done by tampons of prepared wool---not cotton ---which should be saturated with a solution of boracic acid in glycerine and icthyol, and inserted under the fundus, after having raised it from its abnormal position.

This about completes the dressing, and the woman being placed in bed, should not be disturbed for thirty-six or forty-eight hours, when the wool should be removed, the vagina and uterus again irrigated and the packing be replaced with

fresh material. Persistence in this course will overcome the ordinary acute cases.

The more chronic cases, with a thickened and granulated endometrium, and more or less hyperplasia, will require, in addition to the above treatment the practice of massage-electricity, a repetition of curettage, and such constitutional measures as are indicated.

In chronic cases, with plastic exudation, or where the uterus is large and heavy, depleting measures are indicated.

Hot vaginal douches must be used. Tampons of wool, saturated with boro glyceride, packed in the vagina, and allowed to remain twenty-four hours, followed by hot vaginal irrigation, and a renewal of the packing day after day, will hasten resolution of exudates, reduce size of the womb, and materially assist in restoring the parts to a normal condition.

As constipation is a common attendant on these cases, it is imperative that the bowels should be evacuated daily, and one of the best laxatives is equal parts of sulphur, bi tart. potash and sulphate of magnesia, taken in sufficient quantities to maintain a soluble condition of the contents of the intestinal canal.

In misplacements, after having reduced inflammation and its sequelae, and having produced absorption of exudates, and the loosening up of morbid adhesions, the uterus being first placed in its normal position, may now be kept so by a well-fitting pessary.

I know this instrument is very much abused, and objections to its use are heard on every hand, yet it has its uses, and in many cases, it is indispensable. It does not always cure the misplacement, neither does ventral fixation, or Alexander's operation.

We have thus hastily referred to some of the leading features in the remedial management of these cases, and have avoided details, and while much more might be said, the time will not permit. We must, however, allude to cases where repair is indispensable. The general practitioner ought to be able to perform all these operations in minor gynecology.

To sum up the contents of this imperfect and hastily written paper:

1. We insist that the more common diseases and misplacements of the womb may and ought to be managed by the general practitioner as successfully as diseases of other organs.
2. That he must assume this responsibility or a large majority of cases will be provided for, and that he should not compromise himself by referring all cases to the gynecologist until after he has intelligently examined and thoroughly treated the patient, and repaired the common injuries incident to child birth.
3. That a correct diagnosis is all important, and no pains should be spared, no method of examination be omitted that will throw light on the true condition of the patient.
4. That he should study and treat general or constitutional disorders, which, in many cases, contribute to, or complicate the local disease.
5. Be thorough in whatever method of treatment is adopted, and patiently persist in it. Do not expect to cure a chronic uterine trouble in a week or a month. Time, patience, and perseverance will bring their reward here no less surely than in many other undertakings.
6. Be clean. Have clean and soft hands, clean instruments, clean clothes, clean habits, a clean heart, and a clear head.

If these suggestions amplified and varied to meet individual cases and emergencies are faithfully carried out, you may not attain the enviable reputation of an abdominal surgeon, who counts his sections by the score, and measures ovaries by the quart, but you will have saved in its entirety many a diseased and distorted womb, rendered it again capable of performing its proper functions, and you will have maintained a professional consciousness of duty done to this large class of sufferers.

And, if at last, your best directed efforts fail, you will command the admiration and respect of the eminent specialist into whose hands your patient may go for operative procedures.

PREVENTION AND TREATMENT OF INJURIES TO THE PARTURIENT CANAL.*

BY J. L. REDDICK, M.D., OF PADUCAH, KY.

The prevention and treatment of injuries to the parturient canal is more or less familiar to every physician who has had any practical experience in general work, and I would be exceedingly presumptuous should I propose to teach this intelligent body of physicians anything pertaining to the subject.

But our duties along this line are so important that we, as general practitioners, cannot become too familiar with a line of work which deals so much with the health and happiness of the women of our country.

In discussing this subject, I will deal only with lacerations of the cervix and lacerations of the pelvic floor.

Crude midwifery should be, and is almost, I am happy to say, a thing of the past.

The most useful physician to any community, is, as a rule, the obstetrician; his skill and attainments should not be second to, nor inferior to those of any other physician. He should ever be ready and equipped to meet any emergency.

Practical obstetrics in this day and time means far more than making a digital examination, delivering the child, ligating the cord, and delivering the placenta. The physician's whole duty is not done to the parturient until he has restored her to her former physiological state; and should he do his whole duty he must prepare the patient for the "lying-in period," and prevent complications as far as possible, during accouchment, and should they occur, repair them at once. If this is done, then there will be fewer cases for the gynecologist. Auto-infection, impaired health and the morphine

*A paper read at the sixty-fifth annual meeting of the Medical Society of the State of Tennessee, held at Jackson, April 11-14, 1898.

habit would, in a large measure, be avoided, and joy, health, happiness and prosperity would be the patient's weal, and much gratitude, admiration from patients and friends, and increased reputation and revenue would be the physician's reward.

When a woman becomes pregnant she should be under the watchful care of a competent physician; complications should be anticipated and prevented.

Many of the injuries to the parturient canal may be averted by proper attention before and during labor. The urinary organs and bowels should have special attention, and be placed in a healthy condition before labor. Everything done to put the pregnant woman in a normal, healthy condition, will, in a measure, prevent lacerations of the cervix and perineal floor.

Sedentary and indolent habits, pelvic and perineal irritations, in fact, anything which may impair the nutrition of the pelvic floor, renders it irritable, soft and predisposed to rent.

I see more cases of lacerated perineum in city practice in two years than I did in ten years of country practice, which, of course, is accounted for by the different modes of life of our city and rural women.

Fashionable women, who live indoors, lace tight and wear improper dress, are enervated and predisposed to lacerations of the pelvic canal. On the other hand, precipitate labors in strong, muscular women, with violent uterine contractions, especially, if there is a medium-sized child and a rigid perineum, may rupture the pelvic floor.

This may be avoided by complete anaesthesia with chloroform. I administer chloroform in almost all cases of parturition, and know that I have often prevented lacerations.

Lacerations may be frequently avoided by supporting the perineum during the second stage of labor, especially if it be a vertex presentation.

An overloaded rectum and distended bladder, improper traction in forceps deliveries, and the use of ergot may often produce lacerations of the pelvic floor. Hence, the obstetrician may, by a personal attention to many little things before and during labor, prevent injuries to the parturient canal.

But lacerations do occur with the best physicians and surgeons, and extremely unfortunate is she who has received such lacerations, and her attendant is unable or too negligent to detect them and give them prompt and competent surgical attention.

Lacerations may be often detected by the "educated finger," but to be doubly sure that there are no injuries an ocular examination should be made at once.

In lacerations of the cervix, the immediate operation is either one of election or strict necessity. It becomes a necessity if it involves the circular artery and the hemorrhage is alarming.

It is true, hemorrhage could be controlled by tampons, but the danger from sepsis would be greater than by an operation. No doubt many cases of lacerations of the cervix heal spontaneously, especially if the course of the puerperium is aseptic, and for that reason I deem it advisable to postpone the operation.

The immediate operation for lacerated cervix is very simple, and may be quickly performed without an aesthetic. The necessary instruments are the following. A Sims' speculum, vulsellum forceps, a needle holder and needles, or a cervix needle, and suture material. Of course the operation should be under strict asepsis. If the lying-in patient has been properly prepared for parturition it will only require that the instruments and sutures be sterilized, as the maternal parts will not have been infected by the discharges. The material for sutures is one of individual preference. Silkworm gut, kangaroo tendon and catgut are preferable. I prefer silkworm gut, as it is easily sterilized, more easily tied than silver wire, and you can let it remain as long as you desire.

The operation for an old laceration is much the same as an immediate operation, except that the edges of the tear must be freshened, which is easiest done with a hawk-bill scissors.

It must be remembered, however, that the stitches in the primary operation must be drawn tighter to bring the edges of the wound together, as the cervix is more or less oedematous, and if not drawn tighter, in a few days the stitches will be slack.

The most important lesions to the parturient canal, perhaps, are injuries to the pelvic floor. There is little need at the present time to dwell on the sequelæ which follow unimpaired lesions of this kind, and the laity are cognizant of the fact that it is the physician's duty to immediately repair these injuries, and if he fails to do so he is at once censured, and justly so.

The long train of symptoms which may follow a lacerated perineum, namely, haemorrhage and collapse, infection through an open wound, puerperal septicemia, a tedious and incomplete convalescence, subinvolution, endometritis, uterine displacements of different kinds and degrees, prolapse of ovaries, and tubal disease, rectocele, cystocele, neuralgia, functional derangement of adjacent and remote organs, in fact, innumerable reflex troubles and hysteria, is a living monument to the incompetency of the medical attendant in such cases.

There are several degrees of perineal laceration, yet practically speaking, there are two, namely, laceration through the perineal muscles down to, or near the sphincter ani muscle, and the other through the sphincter ani muscle and into the rectum.

About the only contra-indication to the immediate operation is exhaustion of the patient from prolonged labor or post-partum hemorrhage, as to call for absolute rest on her part.

Where the laceration is slight and requires but few stitches, anaesthesia is generally not required as the sensibility of the parts is greatly diminished from the pressure associated with delivery.

If the laceration is extensive it is best to administer an anaesthetic to enable the physician to operate with care and save the woman unnecessary pain.

The essentials for perfect surgical repair are, thorough asepsis, proper approximation of the parts, muscle to muscle, fascia to fascia, mucosa to mucosa, and integument to integument.

The sutures must be deep and include the severed ends of the muscles.

The necessary instruments are few, namely, scissors, needles and needle holder. The material for sutures is one again, of individual preference. I believe that silkworm gut possesses all the advantages of other sutures, and perhaps fewer disadvantages. If I have occasion to use a buried suture I prefer the kangaroo tendon.

If the laceration is complete the sphincter ani muscle must be joined by a separate row of sutures, tying in the rectum, or it may be closed by buried sutures, after which the perineal muscles may be approximated.

It is well to tampon the vagina during the operation, to prevent discharges flowing into the wound. The coaptated edges may be powdered with iodoform, boracic acid, or perhaps, what is better, coated well with iodoform-collodion, and an external dressing of gauze and cotton. The old way of tying the limbs of the patient together, I believe is entirely unnecessary, as the pain will prevent the patient from putting the parts on a tension. The patient had better be catheterized for a few days as urine is exceedingly dangerous to the primary union of a wound.

Selections.

PUERPERAL INFECTION.*—The cause of puerperal infection can be classified as follows: *Streptococcus pyogenes* (usual cause); *staphylococcus pyogenes aureus* and *albus*; *Klebs-Loeffler bacillus of diphtheria*; *bacillus coli communis*; *gonococcus of Niesser*, and, perhaps, the *bacillus of malignant œdema (vibron septique Pasteur)*.

The manner of introduction of the micro-organisms is two-fold: Either from the patients or their dressings, or, more usual, from hands, instruments, or dressings of physician or nurse.

*Read before the Clinical Society of St. James Dispensary, Savannah, Ga., December 4, 1897.

Infection from patients themselves may be illustrated by the role played in the birth of dead and macerated foeti, retained placentæ, accessory growths of the placenta, and spurious placenta, all of which furnish favorable soil for the growth and multiplication of micro-organisms.

In order to have puerperal infection, micro-organisms must be present; they gain admission either through a solution of continuity, or through the puerperal endometrium. The virulence of these organisms varies much, due to difference in temperature, source, and growth. The infection varies with the condition, as well as the number of microbes present, and the individual susceptibility of the patient.

The pathology of puerperal infection depends upon the species of organism producing the infection. Ordinarily, infection is due to streptococcus pyogenes, and the most easily noted change is in the blood, even before, but especially after death. It is thick and black, acid in reaction, and decomposes quickly. Streptococci are found in it at times in large numbers, as well as in the organs and tissues of the body. Leucocytes and red corpuscles are disintegrated, partly by the organisms themselves, as also by the toxine elaborated by them. In consequence of this change in the blood and blood vessels, numerous hemorrhagic foci take place in the internal organs. In the intestines, we may find enteritis or ileo-colitis; in the heart, pericarditis, endocarditis; in the kidneys, acute inflammatory catarrhal condition; in the uterus, metritis; in the veins, phlebitis. Changes in the internal organs are not, however, constant. When the infection is mixed, we have a pyæmic condition; then metastatic abscesses occur in different tissues and organs.

Treatment—Preventive—Begin prophylaxis when we see any indication for the same. Any condition of disease, local or constitutional, that lowers vitality, or furnishes a nidus for bacteria, predisposes to infection, and we may include auto-intoxication in the list. These should be met by proper measures. Any abnormal secretion from the vagina calls for treatment. Leucorrhœa is often due solely to systemic disturbance, which resists local treatment, but is readily cured when the real cause is recognized. Chronic malarial toxæmia readily yields to proper doses of iron, quinine and arsenic. If gonorrhœa is present,

treatment will at once be resorted to. In health, the vagina secretes a mucus and cultivates saphrophytic bacilli, which render it immune to the invasion and harmful influences of pathogenic bacteria; hence, in health, preliminary antiseptic douches are not only uncalled for, but are harmful, in that they upset the provisions of nature.

As an antiseptic for the hands, the writer prefers a 2 or 3 per cent. solution of formalin (a 40 per cent. solution of formaldehyde), gained by the incomplete oxidation of methyl alcohol dissolved in water. The nails are first well cleaned. No matter how clean they may appear, a new or sterilized nail-brush and sandsoap should be used for the fingers, hands, and arms, afterwards washed in alcohol and thoroughly washed and soaked in the formalin solution. Nothing unsterilized should be touched after the cleansing. A sterilized gown should be worn by physician and nurse. Everything should be gotten in readiness beforehand. (The writer showed a little sterilizer for instruments, of his own evolution, which is compact, cheap, easy to transport, and fulfills the purpose for which it is intended.) With the small alcohol stoves, water will boil in five minutes; a 2 per cent. soda solution may be used, and formalin may be added if desired. Make as few vaginal examinations as possible, and wash the hands in formalin solution after each examination, and when a lubricant is needed use sterilized cotton-seed oil or vaseline.

The writer served a few years in the frontier service as physician, at a post among the Sioux Indians, and noted the extreme rarity of puerperal infection among them—despite the filth and unhygienic surroundings of puerperal women. They never permit the introduction of the finger for examination, or the hand for aid, except in the most extreme cases, and these cases were of such a nature that death frequently came before delivery. In the few cases of infection, the wauseca pejutawicasa (the white medicine man) had been in attendance.

The external genitals should be thoroughly scrubbed. Most patients do not neglect their body bath. Where they do, it is well to remind them of its usefulness, aside from common cleanliness. The woman in and after labor should be treated with the same regard for asepticism and surgical cleanliness as in most extensive operation wound.

Unless the hand has been in the uterus, which is to be avoided, if possible, by resorting to Crede's method of expression, the writer would not resort to intra-uterine douches. When labor and the soft parts are normal and the rules of asepticism have been rigidly adhered to, vaginal douches can do no good.

The treatment of infection should be local and constitutional, surgical and medical, influenced by the variety of micro-organism producing the condition. The parts should be examined as far, as possible by the eye to determine the focus, and, in a measure the classification of infection; and upon the information thus gained the treatment will depend. For local disinfection, the writer prefers a 1 to 4 per cent. solution of formalin to any other antiseptic known. Where the point of infection is in the uterus, it must be decided whether it is sapræmic or septicæmic. Cleaning out is indicated; the surgically clean finger, dull or sharp curette may be used (each has its advocates and disadvantages), followed by prolonged douching with or without active germicidal agents. Here, again, the writer prefers formalin solution. It is non-toxic, very slightly irritating in proper strength, and as far as germicidal properties are concerned, heads the list. If remains of necrosed tissue are not present, curetting will accomplish nothing.

If the case is seen early, before septic absorption and migration of bacteria has taken place to any great extent, the writer prefers to use a blunt dilator and irrigator combined. This, after sterilization, is introduced and opened, the irrigating portion having been filled with liquid to prevent introduction of air. It is attached to an irrigating bottle or funnel and a solution of formalin allowed to flow in, while the dilator is moved in every possible direction. This flow may be maintained as long as desired, being careful not to have the solution too strong, nor the hydrostatic pressure too great by too high an elevation of the container. The temperature should guide as to the length of time and value of the washing out. Formaldehyde or iodoform gauze may be used to induce drainage and act as germicidal agents, or as iodoform does to prevent the formation of toxines.

A method which has suggested itself to the writer, but which as yet an opportunity has not offered for use, is the conveying

of formaldehyde gas combined with vapor of alcohol into the uterine cavity through a suitable uterine tube applicator. Theoretically, it should prove of great value; practically, we do not know what it will do; at any rate, it is non-toxic. Steam at 100 degrees to 115 degrees F. has been used in this manner with reported good results.

The constitutional treatment is modified in a measure by the kind of infection present. If due to Klebs-Löffler bacilli, anti-diphtheritic serum should be used. If, as more often happens, the pseudo membranous angina and the poisoning are due to streptococcus pyogenes, anti-streptococcus serum is indicated—that of Marmorek probably being the most noted, but many serums made in our own country are as good. Ten cases are reported of streptococcus phlegmon where the swelling of lymphangitis and lymphadenitis quickly disappeared after the use of serum.* The serum treatment, however, seems not to have yet reached that high grade of healing power to which it is thought it will later rise.

The indications are to sustain by proper remedial agents and stimulants, judiciously employed, the patient's vitality until the *vis medicatrix naturæ* sufficiently asserts itself. The writer believes in pushing alcoholic stimulants.

With the report of a case, I close my remarks: Patient, age 39, delivered at full term of twins, dead three or four weeks, *in utero*, and attached to one placenta, which came away entire; no laceration of uterus or soft parts. Next day, lochia, apparently normal. On fourth day, at 6 A. M., severe chill, followed by temperature of 105°; pulse, 148; stupor. Used dilator as above described and irrigated with formalin solution for one hour. A few small shreds came away, but nothing else. Temperature sank to 103° in the afternoon, when irrigation was resorted to. Temperature at 9 P. M., 102°. Irrigation again next day; temperature 102°, in afternoon 101°; irrigation. Temperature at 9 P. M., 100°. Morning, irrigation; temperature 100.5; afternoon temperature, 100.8°. Irrigation; night temperature normal. Irrigation next morning. Patient bright, appetite returning, and went on to recovery. Blood examina-

*Diendonne. Schutzimpfung und Serum Therapie. Leipsic, 1895.

tion showed no plasmodii, but excess of leucocytes. Calomel in small doses and quinine were given internally.—*St. Joseph B. Graham, M.D., of Savannah, Ga., in Virginia Medical Semi-Monthly.*

TREATMENT OF STRICTURES.—Howland (*Medical News*, April 9) writes on “Gradual Dilation Versus Cutting in the Treatment of Urethral Structures.” He says: The best genito-urinary surgeons are now decrying the practice of using the knife at the first sign of a stricture of the urethra. This is good surgery and should be even more generally practiced. Dilation is always advisable and more often successful than surgeons generally believe. The length of period necessary to effect a cure depends largely on the patient and on the stricture, the length of time it has existed, and its location in the urethra, varying from three to twelve months. Many patients prefer the cutting operation to this long treatment, until they understand that with such operations the cure is not as permanent and sounds have to be passed at regular intervals. I have observed the best results from gradual dilation up to and not exceeding 32 French, and if a urethra thus treated can be maintained at a calibre of 28 or 26 French, it is all that will be required. The dilation should be conducted slowly and with great care, and an advancement of more than two sizes at one sitting not attempted. At the slightest sign of blood oozing the treatment must cease and the irritated membrane treated by instillation or irrigation with some astrin-gent preparation. I have used plain water at 105 to 110 degrees F., one quart at a sitting, with encouraging results. Never allow a patient to pass sounds upon himself. The writer does not believe that all strictures can be cured by gradual dilation, but he does believe that a great number can be.—*American Medical Compend.*

THE POSSIBILITIES OF ANTITOXIN.—A statement was made by one of the speakers at the recent Sanitary Convention in Detroit that the use of antitoxine has established an expectancy of from 13—14 per cent. as a death rate in diphtheria instead of

the old time rate of 30 per cent. and over without its use. This statement calls for a criticism from Dr. George Suttie, who in the *Louisville Medical Monthly* of recent date recites his experience in the Contagious Department of Harper Hospital, of Detroit, where he has watched its administration from the beginning. In the early months a serum of foreign make was used, 44 cases being treated with a majority of 4. Afterward the American product, manufactured by Parke, Davis & Co., was used and proved more satisfactory than the former. With this 24 cases were treated, 4 requiring tracheotomy, with a mortality of only 1. After this free distribution of antitoxine was made by the Board of Health to those who were not able to pay for it, and to the various hospitals where patients were sent by the Board of Health. The number of patients treated for the year ending February, 1897, were 374 with antitoxin, the death rate being 12.56 per cent.; and 467 without antitoxin, the death rate being 34.90 per cent. From March 1st to December, 1897 there were treated with antitoxin 305 cases, with 32 deaths; and 632 cases without antitoxin with 192 deaths, representing 10.49 and 30.39 per cent. respectively. The Board of Health used the preparation of Messrs. Parke, Davis & Co., entirely. Continued experience goes to show that with the advantage of the early use of antitoxin being recognized both by the public and the profession there is a steady improvement in the results obtained.—*North Carolina Medical Journal.*

COLD SPONGING VERSUS COLD BATH.—Dr. H. A. Hare (*Therapeutic Gazette*, March 15th) affirms that he has used cold sponging in his hospital practice and rarely the bath, with the most satisfactory results. He suggests the following rules of treatment: 1. In early typhoid, with constipation or moderate diarrhoea, gave a full dose of calomel in divided doses, in order to stimulate the liver and antisepticise the bowel with bile. 2. Control the fever when it reaches 102° F. by sponging. The patient being stripped and laid on a rubber sheet or blanket over a sheet, he is to be sponged with water adapted in its temperature to his needs, and it is to be remembered that the rapid application of a low temperature is more refreshing than the prolonged

application of a higher temperature (Baruch). The chief advantage of the cold sponge lies in the shock and reaction. This is better obtained by the use of ice sponging than by the bath. The patient's surface is always red in ice sponging, often blue in the bath, and that the fever is not the chief danger in the case renders the fact that as great a reduction from the sponge is not reached as from the bath of little importance except in hyperpyrexia. Shattuck tells us that he has found no marked or constant difference in the antipyretic value of cold sponging at 60° F. for twenty minutes, the cold pack at 60 F. for sixty minutes, or the cold bath at 70° F. for ten or fifteen minutes. Finally, if this does not bring the temperature down to 100.5° or 101° F. in twenty minutes, resort should be had to the tub. It is essential when the sponging is used that more water be applied to the back than to the trunk of the body, for at the back the great muscles and thick skin retain the heat as a reservoir, and are not cooled if only the front of the body is sponged. Further, the posterior surfaces are the ones apt to be congested and sore, from the dorsal decubitus, and therefore need the stimulating effect of the bath, as do the kidneys and other deeply situated organs. That this treatment is of value is shown by the marked redness of the skin, the improvement of the circulation and respiration, and the cleared mind. 3. It is advisable not only to use friction in a light form, but to use moderately active massage, with the same objects in view as when the rest cure is undertaken, for the proper treatment of typhoid is a modified rest cure. The writer is firmly convinced that by this means bedsores, local congestions and effusions, œdematosus swellings, peripheral nerve pains, and muscular feebleness will be largely decreased, and Pospischl has shown that mechanical irritation of the skin is capable of increasing heat loss ninety-five per cent. 4. In nearly all cases give more nourishment than the average typhoid patient in the past has usually had. With the exception of broths and meats, almost any article easy of digestion should be allowed—as one or two or more lightly boiled eggs, corn starch, arrowroot, etc. 5. Use stimulants in carefully graduated doses whenever the circulation needs them, particularly alcohol. Even the cold-bath enthusiasts give whisky to overcome the depression they often produce.—*Medical Record.*

COC A ERYTHROXYLON.—We need not enter into a full description of the history of the Erythroxylon Coca, as we believe that most medical men are fully acquainted with the principal facts concerning the plant. We may, however, recall to mind that the leaf is the only part of the plant used. Very much depends, therefore, upon the plucking of the leaf, and the time at which it is plucked; the subsequent care of the leaf being matter of considerable importance, and affecting very materially the preparations made from it. M. Mariani was the first in Europe who took up the study of the plant, and over thirty years ago commenced manufacturing for the medical profession the various specialties associated with his name, viz., "Vin Mariani," "Elixir Mariani," "Pate Mariani," "The Mariani," "Pastilles Mariani," etc., preparations which are known all over the world, and which have acquired their well-known reputation by their purity and efficacy. The stimulating and strengthening property of the leaf in its natural state has been tested by experienced travelers and botanists during several centuries, and it is this invigorating property which the physician wishes to bring into use, and which he is enabled to do in a palatable form by means of "Vin Mariani," this wine being indicated where there is great depression, long continued exhaustion, and where a special stimulative action is desired. "Vin Mariani" is agreeable, palatable, imparting by its diffusibility an agreeable warmth over the whole body, and exciting functional activity of the cerebro-spinal nerve centres. We have frequently prescribed this wine, and we can, from practical experience, recommend it.
—*The Provincial Medical Journal, London, Eng.*

GOLDEN RULES.—The following suggestions in abdominal surgery are said to have come from a celebrated London surgeon: Always avoid purgatives in treating a patient who has swallowed a foreign body. Give opium and constipating food—boiled eggs, cheese, puddings, potatoes, etc. Never close any wound of the abdominal wall till all hemorrhage has ceased. Never, under any circumstances, apply pressure to a wound of the abdominal wall to arrest hemorrhage. Never mind increasing a superficial wound of the abdomen in order to remove a foreign

body or to secure a bleeding point. Never probe any wound in the abdominal wall. Never forget that all abscesses of the abdominal wall should be opened freely and at once. Never hesitate or delay to open and drain an abscess in the loin due to rupture or injury to the kidney. Never procrastinate in strangulated hernia. It is not usually the operation which will prove unsuccessful in herniotomy; the danger lies in your allowing the bowel to become irrecoverable. Never be deceived by an opiate masking the acute symptoms of hernia, obstruction, peritonitis. Never tap a suspected renal tumor through the peritoneum. Always relax the abdominal wall after suturing. Never ligate en masse in cutting off omentum; do it piecemeal; the constricted edge of the apron of omentum may unravel, and fatal hemorrhage result. In protrusion of the viscera never neglect to pass your finger fairly through the wound to make sure that the reduction has been complete. And be careful never to push the bowel into an interstice between the muscle or into subperitoneal tissue.—*Medical Record.*

GASTRIC ULCER.—In the *Medical Brief* Dr. William Murrell, of London, Eng., says: "We all know that when an ulcer of the leg is indolent, and refuses to heal, the best plan is to touch it up with lunar caustic or sulphate of copper. This mode of treatment is, with certain modifications, equally applicable to an ulcer of the stomach. What I do is to paint it with iodine. There is not the slightest difficulty; I order the patient five drops of iodine (U. S. P.) three times a day, in a wineglass of water. It produces no pain and no inconvenience, and the condition of the mucous membrane of the stomach rapidly improves, until in a few days the ulcer is completely healed and the digestive powers are restored to their pristine condition. I have done this over and over again, and I have never known iodism or any inconvenience result from the treatment. In the early stages it will often effect a cure without limitation of diet or confinement to bed. Should the patient object to the pungency of the tincture of iodine I add half a drachm of glycerin to each dose. This I believe to be the best plan of curing gastric ulcer,"—*Medical Belletin.*

SALICYLATE OF SODIUM IN TOOTHACHE.—Dr. Frederick C. Coley (Practitioner; North Carolina Medical Journal; Southern Clinic, June) believes salicylate of sodim to be the best remedy in toothache arising from catching cold. A dose of fifteen grains will usually relieve the pain promptly, and if repeated every four hours the inflammation may entirely subside, leaving the carious tooth to be disposed of according to circumstances. Fifteen grains of sodium salicylate, with fifteen minims of tincture of belladonna, will often procure refreshing sleep instead of a night of agony. Dr. Coley's first experience of it was on his own person, and since then he has used it with many brilliant successes and few failures. It is especially valuable with children, where extraction of teeth is to be avoided, if possible, lest the development of the maxilla should be injured.—*New York Medical Journal.*

THE CARE OF THE SOLDIER'S FEET.—Gerdeck (National Medical Review, June) recommends strongly the penciling of undiluted (?) formalin morning, noon, and night and next morning, though the more delicate skin should be treated but twice instead of four times. The shoe is then disinfected by dropping into it four to six drops of the same fluid, which preserves the leather. This process stops undue sweating without producing any constitutional injury, and prevents maceration of the epidermis, hardening the tissues.—*New York Medical Journal.*

SOME DON'TS ABOUT HEART DISEASE.—*Don't* feel called upon to give digitalis as soon as you hear a murmur over the heart. Study and treat the patient not the murmur.

Don't conclude that every murmur indicates disease of the heart.

Don't forget that the pulse and general appearance of the patient often tell more than auscultation.

Don't neglect to note the character of the pulse when you feel it. Possibly you may look at the tongue to satisfy the patient; feel the pulse to instruct yourself.

Don't think every systolic murmur at the apex indicates

mitral regurgitation; every systolic murmur at the aortic interspace, aortic stenosis. The former may be trivial; the latter may be due to atheroma of the arch of the aorta.

Don't say every sudden death is due to heart disease.

Don't forget that the most serious diseases of the heart may occasion no murmur. A bad muscle is worse than a leaky valve.

Don't examine the heart through heavy clothing.

Don't give positive opinions after one examination.—Philadelphia Medical Journal.

EXTRA UTERINE PREGNANCY.—In a lecture on this subject by Dr. John W. Taylor, in *The London Lancet* for June 18th, ult., in considering the important feature of diagnosis he lays stress upon the increased vascularity of the parts affected. A very constant and valuable sign accompanying this vascularity is the presence of pulsating vessels in the vaginal vault on the affected side. All the branches of the uterine artery are subject to very marked enlargement on the side of the pregnancy. It is often easy to touch a vessel the "pulse" of which is comparable to that of the radial, and, although inflammatory affections may sometimes give rise to similar hyperemia, the pulsation of the vessels is rarely so marked and so easy to elicit as in the presence of tubal pregnancy. The diagnosis includes the differentiation of tubal pregnancy from pyosalpinx with amenorrhea, myoma, simple abortion, retroflexion of the gravid uterus, and twisted, pedunculated tumors of the tube or ovary. If the pyosalpinx be quite recent there will still be a history of a purulent vaginal discharge preceding the pelvic inflammation. A twisted pedunculated tumor is not so intimately connected with the uterus as a tubal pregnancy would be. When formed by the tube or the ovary it has rather the character of an ovarian enlargement, and unless adhered to the uterus there is quite generally some unoccupied space to be discovered between the uterus and the tumor.—*Philadelphia Medical Journal.*

A REMEDY FOR BEDBUGS.—We are told (*Zeitschrift fur Krankenpflege*) that acetic acid injected by means of a glass syringe in to all the cracks and crannies is an excellent remedy against these troublesome pests, as a drop of acetic acid infallibly kills a whole nest of them.—*New York Medical Journal.*

KRYOFINE AS AN ANODYNE.—The May number of the *Therapeutic Gazette* contains a very interesting article relating to this drug, reported by Dr. Curtis, Professor of Therapeutics, Chicago College of Physicians and Surgeons, from which we quote:

For the relief of pain kryofine acts very rapidly and surely, the relief often occurring within fifteen minutes. The class of cases in which it acts best are of neuralgic type. Of a record of a large number of cases I append four. In no case have I been disappointed in obtaining relief. Of course pain will return unless the cause be sought for and removed.

CASE VII.—Miss W., aged 24, telephone operator. For past three months she has suffered almost continuously with severe lancinating pains in the right side of head. For past six weeks she has been confined to bed. She has tried numerous remedies and several doctors with scarcely any relief. The last physicians finally gave morphine, each dose of which relieved her for an hour or two. I was called the evening of February 10, 1898, and found her complaining of the pain mentioned. Had not slept for over an hour at a time for several weeks. Scalp was excessively tender, especially on the right side. Photophobia; there was quite a severe acute iritis in the right eye. No history or suspicion of syphilis. Pulse 90, temperature 99°? Tongue coated, bowels constipated, poor appetite, rheumatic diathesis suspected. Gave eight grains of kryofine and repeated in four hours. Next morning found patient had slept all night for first time in weeks. Entirely free from pain, but scalp exceedingly tender. Prescribed a laxative, seven grains soda salicylate every four hours, and atropine and hot applications for the eye. Also directed patient to take kryofine upon the return of pain. This was done upon several occasions for two or three days, and pain has not been severe since the first dose, and has not returned after the third day. Recovery complete.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

THE PULSE IN SEPSIS.—Do not place too much reliance upon the temperature in diagnosing septic infection, no matter whether it be puerperal or not. The pulse will be found to be a much safer guide, as while you almost never will see a case of sepsis without a quickened pulse, you will not rarely run across cases in which there is almost no noticeable rise in temperature; I, myself having seen several cases in which the temperature did not rise over 99.5° F. Where you have a rapid pulse, headache, foul tongue, and dry, hot skin in a puerperal woman, look out for septic infection, no matter what the temperature indicates.—*Dr. Lockhart, in Montreal Medical Journal.*

WHEN SHALL THE SURGEON OPERATE IN CASES OF APPENDICITIS?—If there was any doubt as to the continued and general interest in this much-discussed question, it must have been dispelled by the spirited and able debate on the subject at the recent meeting of the American Medical Association at Denver. The statement is often made that no definite rules have been laid down by those surgeons who do not advocate operation in all cases as to when surgical interference is justified. As bearing on this point a few conclusions from a most able and exhaustive paper by Czerny in a recent number of the *Beitrage zur klinischen Chirurgie* may be of interest: “The first acute attack of appendicitis belongs to the physician. This attack may: (a) pass by without complication, in which case there is no occasion for surgical interference; or (b) earlier or later, with alarming symptoms of general or local nature (fever, rapid pulse, pain, dulness on percussion, rigidity,) it may go on to perforation and abscess-formation. Such an abscess either (A) leads to progressive and threatening general peritonitis or (B) it remains circumscribed and becomes encapsulated, the first severe symptoms continuing without important change. The conditions (b,) (A), (B) indicate surgical treatment, as do all chronic recurrent forms of appendicitis, whether they be purely catarrhal, ulcerative, perforating or obliterative.” The question is still undecided, for there are several eminent American surgeons of large experience in this disease who hold that all cases should be operated upon as soon as a diagnosis is made, and there is a still

smaller minority, made up mainly of medical men, who hold that nearly all cases should receive only medical treatment. However, the opinion of Czerny, as quoted, probably coincides with that of the large majority of representative surgeons of America and Europe and furnishes a clear and concise rule for the guidance of those who are in doubt as to when surgical interference is indicated.—*Philadelphia Medical Journal.*

Editorial.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The twenty-fourth annual meeting of the Mississippi Valley Medical Association will be held in Nashville, Tenn., October 11-14, under the presidency of Dr. John Young Brown, of St. Louis, Mo.

The growth of this Association has been remarkable, it really having no geographical limit in its membership, though when it was changed from the Tri-State Medical Society, embracing Indiana, Kentucky and Illinois, in 1883, the intention was to limit its membership to the Mississippi Valley, which it was then named. In point of numbers it is second only to the American Medical Association, but in scientific work accomplished it is the peer of any. The last meeting in Louisville was the banner meeting, there being so many papers upon the programme it was necessary to divide it into sections, medical and surgical. This was attempted at several previous meetings, but the attendance at no time fully justified the division, and the papers were read in a general meeting.

The annual addresses have been features of the Association for some years, delivered as they are by men eminent in the profession, they have always proven popular features. In 1896 they were delivered by Dr. H. H. Grant, of Louisville, in Surgery; in 1897 Dr. Murphy, of Chicago, made the address in Surgery, and Dr. J. V. Shoemaker, of Philadelphia, in Medicine; and the addresses at the October meeting in this city will be delivered by Dr. J. T. Whittaker, of Cincinnati, in Medicine, and Dr. Dr. Geo. Ben Johnson, of Richmond, Va., in Surgery. The mere mention of the names of these gentlemen establishes the fact that the Association will hear two scholarly and scientific addresses.

At the meeting in Louisville the Association made a stride forward in adopting a Constitution and By-Laws which put it upon a sound working basis, the chief change being in making membership in the Association permanent upon regular payment of dues, two years non-payment causing forfeiture. It was resolved, also, that beginning with the 1898 meeting, a volume of Transactions be issued, which has never been done heretofore.

Among the former Presidents of the Association may be mentioned the following: '81, Dr. A. M. Owen, Evansville, Ind.; '82, Dr. J. M. Holloway, Louisville; '83, Dr. B. M. Griffith, Springfield, Ill.; '84, Dr. F. W. Beard, Vincennes, Ind.; '85, Dr. Arch Dixon, Henderson, Ky.; '86, Dr. Wm. Porter, St. Louis, Mo.; '87, Dr. I. N. Love, St. Louis, Mo.; '88, Dr. D. S. Reynolds, Louisville, '89; Dr. Geo. J. Cook, Indianapolis, Ind.; '90, Dr. Jos. M. Mathews, Louisville (President-elect of the American Medical Association); '91, Dr. C. H. Hughes, St. Louis; '93, Dr. W. N. Wishard, Indianapolis; '94, Dr. X. C. Scott, Cleveland; '95, Dr. R. Stansbury Sutton, Philadelphia; '96, Dr. H. O. Walker, Detroit; '97, Dr. Thos. Hunt Stucky, Louisville; '98, Dr. John Young Brown, St. Louis.

Dr. Hanau W. Loeb, of St. Louis, served as Secretary for several years, succeeding Dr. F. C. Woodburn, of Indianapolis. At Louisville, Dr. Henry E. Tuley was elected Secretary, and to him, at Louisville, Ky., 111 W. Kentucky Street, should be sent titles of papers, at an early date, in order to have a desirable place upon the programme. Quite a number of attractive titles of papers by prominent and able members have already been received, and others have been promised.

The profession of Nashville, under the Chairmanship of Dr. Duncan Eve of the Local Committee of Arrangements, is acting as one man in preparing for the coming meeting, and as all railroads have granted a fare and a third rate, and as papers are already being received, the meeting will be a success in every way. Nashville is an excellent convention city, offering superb places of meeting in the elegant State building, has ample hotel accommodations, and a genuine Southern welcome.

The meetings will be held in the Hall of Representatives, at the State Capitol, large, well lighted and ventilated, that has comfortably held, time and again, State conventions aggregating 1200 to 1500 members. The Registration Committee, the Exhibit Hall, etc., will be on the same floor of the building. Already quite a number of exhibitors have applied for space in the Senate Chamber, which will be used for them, and this feature alone will be both attractive and instructive.

The members of the medical profession in the Capital City of Tennessee are thoroughly organized and actively at work to make the coming meeting, both in attractiveness and attendance, as well as popularity and enjoyment, second to none that have preceded it. The City of Nashville has been honored by two meetings of the American Medical Association (an honor conferred on no other city of its size, and but few cities of more than triple, quadruple and even sextuple population). It has entertained the American Public Health Association, and is the bi-ennial home of the State Medical Association, and is well and favorably known to the medical men throughout the country. The time of the meeting is fixed for the most enjoyable and agreeable part of the year in this latitude. The hospitality and geniality of the citizens of this State, and especially its capital city, are so well known as to need no mention in this connection. Hotel facilities of the highest order, and reduced rates on all railroad

lines, in conclusion, fully justify the anticipation of a largely attended meeting of progressive and wide-awake medical men of the most progressive and prosperous portion of the Union.

Therefore, every regular member of the profession is cordially invited to attend, being assured that the time will be both enjoyably and profitably spent. The social features, of which we will have more to say in the "bye and bye," will be by no means neglected, though not permitted to interfere with the scientific work of the meeting in any way.

KRYOFINE.—When locally applied the drug is antiseptic and slightly sedative.

It has no special action on the digestive system. It is non-irritating and seems to exert a slight sedative influence.

Regarding the circulatory system, the drug, in therapeutic doses, has no apparent effect upon the blood; the arterial tension, however, is slightly raised and the force and rapidity of the heart's action moderately increased. Toxic doses cause profound cardiac depression, through direct influence upon the heart and vaso-motor mechanism.

In medicinal doses kryofine is a powerful sedative to the sensory nerves and spinal cord, and in many cases the drug acts as a hypnotic. Upon the respiratory system, in moderate doses, the drug is more or less inert, but in large doses the respirations are slightly accelerated.

Kryofine is rapidly absorbed and eliminated, excretion occurring chiefly by the kidneys, although to some extent by the skin. Neither the amount of urine nor that of urinary solids is materially increased.

Upon the temperature kryofine exerts a marked influence, reducing fever in from thirty minutes to an hour, the effect lasting from three to six hours. It has no effect upon the normal body temperature.

The antipyretic action of the drug is due primarily to its influence upon the heart center in the medulla. When the body is in a state of hyperpyrexia this center is in a depressed condition, owing to certain poisons circulating in the blood, and will not respond to the normal limit (98.6 degrees) of body temperature. Kryofine, like other members of the antipyretic group, increases the irritability of the heat center, causing it to respond to a lower temperature while, through its action on the vaso-motor center, the drug stimulates the vaso-dilators, thereby increasing the peripheral circulation and consequently favoring heat dissipation.

Owing to its antiseptic and sedative properties kryofine is valuable in the treatment of wounds, ulcers, chancres and chancroids. The action which renders kryofine particularly beneficial and establishes its great value is its anodyne influence. My own experience justifies the statement that, with the exception of morphine, no drug possesses so positive, prompt and efficient an analgesic property as kryofine; indeed, there are painful disorders—such as migraine and, particularly, the pains of loco-motor ataxia and certain spinal diseases—where kryofine seems nearly as efficient as morphine and attended with less unpleasant sequelæ.

GRAY'S GLYCERINE TONIC COMP.—The unique value of this preparation is becoming widely appreciated, especially for use during the summer months. It corrects the prevailing stomachic derangements, controls fermentation and acidity, aids digestion and stimulates hepatic and intestinal functions.

In respiratory disorders, nerve exhaustion, anæmia, chronic ailments and debilitated conditions it can be relied upon, and no overstimulation or depressing reaction follows its use. In the convalescence of typhoid and other protracted fevers and wasting diseases it is most indicated.

Try it and be convinced. Made by The Purdue Frederick Co., sole proprietors, No. 15 Murray Street, New York.

THE PROMPT SOLUTION OF TABLETS.—We are glad to know that the Antikamnia people take the precaution to state that when a prompt effect is desired the Antikamnia Tablets should be crushed. It so frequently happens that certain unfavorable influences in the stomach may prevent the prompt solution of tablets that this suggestion is well worth heeding. Antikamnia itself is tasteless, and the crushed tablets can be placed on the tongue and washed down with a swallow of water. Proprietors of other tablets would have had better success if they had given more thought to this question of prompt solubility. Antikamnia and its combination in tablet form are great favorites of ours, not because of their convenience alone, but also because of their therapeutic worth.—*The Journal of Practical Medicine.*

THE HYPNOTIC EFFECT OF BROMIDIA does not by any means represent the sole benefit to be derived from this preparation, but it meets in a very perfect manner many other indications involving hyperesthesia of nerve tips and over-excitability of spinal cord. In doses of one-half teaspoonful, given every four hours for two days, will so benumb the sensory nerve tips of the buccal cavity that dentists can take impressions of the mouth, fit in rubber dams, etc., that would otherwise be impossible on account of the gagging peculiar to some patients. In the hands of the medical practitioner, given in half-teaspoonful doses every four hours, will make life endurable for hay-fever patients during the months of August and September. A teaspoonful will completely quiet the paroxysmal pain following childbirth or miscarriage without in any way interfering with uterine contractions.

NOTICE.—We desire to announce that we will pay the stamp tax ourselves, and will not raise the price of Peacock's Bromides and Chionia. We do this to prevent the burden of the tax from falling upon the retail druggist. In return for this concession, we solicit the good will and

moral support of the druggists, and hope for their assistance in preventing substitution. Peacock's Bromides and Chionia are kept in stock by all wholesale druggists, to whom all orders for less than gross lots should be sent. Peacock Chemical Co., St. Louis, Mo.

N. B.—All goods in the hands of the trade when law goes into effect are to be stamped when sold at retail. This expense the retailer will have to stand, but it will be only temporary.

IMPERIAL GRANUM is the standard and reliable food for infants and invalids, and has won the approval of physicians because its merits have been proved by years of clinical success—often in cases when life seemed depending on its retention. Therefore, while a very large majority of the medical profession are acquainted with its great value, and know from experience that no other food fills so satisfactorily such a wide range of usefulness, still no article of exceptional merit can be favorably received and recommended by physicians without being closely followed by imitations and competition, and the Imperial Granum is not an exception. It has justly acquired the enviable reputation of being an unrivalled nutriment for invalids and convalescents and for nursing mothers, infants and children.

THE Columbus Phaeton Company, Columbus, Ohio, is the only factory to our knowledge, that gives a guaranty covering a period of two years from date of purchase, with each vehicle that they sell. This guaranty is of great value to the purchaser for it means that the vehicles are so well built that the factory have confidence in them, and will not be called upon to replace or repair under their guaranty. The Columbus Phaeton Company are always, not only willing, but anxious, to make anything satisfactory that is not right.

THE attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears in this issue. This house is one of long standing, and enjoys a reputation of the highest character.

The preparations referred to we recommend specially to the notice of practitioners.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, N. Y.

J. A. STOUTENBURGH, M.D., late Resident Physician Columbia Hospital, Washington, D. C.—“We need a remedy or combination of them that will increase the oxygen-carrying power of the blood, increase the appetite and stimulate the stomach and intestines to renewed activity. Many so-called blood-makers attempt to do too much for us by supplying pre-digested and artificial food. It is better to give nature a chance, by coaxing her to resume her work, and then furnishing a nutritious and easily digestible diet. ‘Gray’s Glycerine Tonic Comp.’ is a preparation which has done me excellent service in many cases. I am well satisfied that we have in this tonic a most valuable medium, one sure to grow in favor as its merits become better known.”

TONGALINE AND LITHIA TABLETS will be found excellent for the prompt and thorough elimination of toxines and particularly of any excess of uric acid in the system, manifested by Rheumatic and Gouty symptoms.

A USEFUL CHART.—Write to the Imperial Granum Food Company, New Haven, Conn., for sample copies of their new "Nursing World Fever Chart" for recording the vital signs and other information relating to the Baths given in the treatment of fever cases. It is very complete and will be found especially useful in typhoid fever.

Now is the time to buy a vehicle. This is the season of the year when prices are "punctured." There are some very attractive vehicles at astonishingly low prices, now being advertised by the Columbus Phaeton Company. This is a "before inventory" sale which the physician should take advantage of.

I HAVE been using Sanmetto in my practice for two or three years. I have used it in a good many cases of cystitis, prostatitis and in all cases of irritable bladder, with the most gratifying results.

R. T. HOCKER, M.D.,
Arlington, Ky.
Ex Pres. So. Western Ky. Med. Assoc.

TONGALINE AND QUININE TABLETS form a most efficient combination for all malarial conditions, especially those complicated with Rheumatism and Neuralgia.

If your old buggy begins to look shabby and if there is a probability of your requiring a new one in the immediate future, you would do well to consult the advertisement of the Columbus Phaeton Company in this issue, etc.

Reviews and Book Notices.

ATLAS OF SYPHILIS AND THE VENEREAL DISEASES. By PROF. DR. FRANZ MRACEK, of Vienna. Edited by L. BOLTON BANGS, M.D., late Professor of Genito-Urinary and Venereal Diseases, New York Post-Graduate Medical School and Hospital. With 71 colored plates from original water-colors, and 16 black and white illustrations. 8vo., cloth. Price, \$3.50 net. W. B. SAUNDERS, Publisher, 925 Walnut St., Philadelphia. 1898.

For scientific accuracy, pictorial beauty, compactness, and cheapness these books surpass any similar volumes ever published. Besides numerous other illustrations in the text. These colored plates have been executed by the most skillful German lithographers, in some cases twenty or more impressions being required to obtain the desired result. There is a full and appropriate description of each plate (printed, for convenience, opposite the plate), together with a condensed outline of the subject to which the book is devoted.

This book is eminently a practical one—those diseases which are of the most frequent occurrence and greatest practical importance have been fully described and considered. The artist has mastered the difficult problem of interpreting and reproducing the various clinical pictures, the reproduction of which has been done in a most commendable manner.

For the sake of convenience the names of drugs and certain technical terms have been made to conform to current English expressions, and in the prescriptions suggested the amounts appear in the old familiar apothecaries denominations as well as in grams.

ATLAS OF OPERATIVE SURGERY. By DR. O. ZUCKERANDL, of Vienna. Edited by J. CHALMERS DA COSTA, M.D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital. With 24 colored plates, and 217 illustrations in the text. 8vo., cloth. Price, \$3.00. W. B. SAUNDERS, Publisher, 925 Walnut St., Philadelphia. 1898.

The great advantage of natural pictorial representation is indisputable. For lasting and practical knowledge, one accurate illustration is better than several pages of dry description.

These Atlases offer a ready and satisfactory substitute for

clinical observation, available only to the residents of large medical centers; and with such persons the requisite variety is seen only after long years of routine hospital service.

While appreciating the value of such colored plates, the profession has heretofore been practically debarred from purchasing similar works because of their extremely high price, made necessary by the limited sale and the enormous expense of production. The very low price of these Atlases will place them within the reach of even the novice in practice.

This epitome of operative surgery is intended as an elementary work for students in this subject. Those groups of operations whose practice upon the cadaver form the basis of practical instruction are described in detail and illustrated in their most important features. Other operations, whose performance falls largely to the lot of the skilled surgeon, and whose practice upon the cadaver appear less important are described concisely.

In this Atlas are laid down the rules and methods of surgical procedure with the clearness that springs from definite knowledge and the emphasis born of conviction. The operations of modern surgery are lucidly and tersely described in a manner to fit this book to be a guide to the surgeon and student, both correct and practical.

THE OFFICE TREATMENT OF HEMORRHOIDS, FISTULA, ETC., without operation together with remarks on the relation of diseases of the rectum to other diseases in both sexes, but especially in women, and the abuse of the operation of colostomy. By CHARLES B. KELSEY, A.M., M.D., late Professor of Surgery at the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine, the New York County Medical Society, etc., 12mo. cloth, 68 pages. Price, 75 cents net. For sale by all booksellers or sent by mail on receipt of price. E. R. PELTON, Publisher, No. 19 East Sixteenth St., New York. 1898.

This is a very excellent little work by one of the leading authorities in rectal diseases. The following subjects are considered:

The Cure of Hemorrhoids, Fistula, Fissure and other Affections of the Rectum by Office Treatment without Operation.

On the Relation between Diseases of the Rectum and other Diseases in both Sexes, but especially in Women.

On the Abuse of the Operation of Colostomy, or the Formation of an artificial Anus.

ANNUAL AND ANALYTICAL CYCLOPÆDIA OF PRACTICAL MEDICINE. By CHARLES E. DE M. SAJOUS, M.D., and One Hundred Associate Editors, Assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with chromo-lithographs, engravings and maps. Vol. I. THE F. A. DAVIS COMPANY, Publishers, Philadelphia, New York and Chicago. 1898.

This magnificent volume is the first of a set of six, to supplement and supplant Sajous' *Annual of the Universal Medical Sciences* that have been so popular. This innovation presents the features of the Annual in the review of the recent literature, combined with a full and lucid text of all diseases, operative procedures, drugs, etc. It has a distinguished list of Collaborators, who are eminent authority on the various subjects treated. A very novel and useful arrangement is that of the recent literature, case reports, etc., pertaining to the several topics, in smaller type, thus saving the overworked practitioner who is looking for concise information the labor of perusing irrelevant and controversial matter. It also affords the analytical reader and student that many sided view from which he can draw his own deductions.

The first volume contains subjects in alphabetical order from Abdominal Injuries to Bright's Disease. The former is a very full and masterful array of this very prolific field of inquiry in this day of electric railways, foot-ball games, bicycling and war. Alcoholism although not so conspicuous as in the erstwhile days of the many vaunted "cures," is as prevalent and pernicious as ever, and its therapy is still the subject of advanced legitimate study.

Abortion is considered with all the detailed precision that its multiplied causes, its great socialologic bearing, and the modern means for its correct management deserves.

Animal extracts are discussed from the manifold possibilites it holds to future therapeusis, as well as its present achievements.

Appendicitis is treated with the exhaustiveness which its unaccountable prevalence and gravity demand. It is illustrated

with illuminated maps of topography and sites of incision, and so on in alphabetical progression.

It is the invigorating leaven of modernity, associated with the classic and the good that will render this work of incalculable utility. It is obvious that so stupendous a work, offering every phase of tenable opinion, presents no field for criticism. Indeed, there appears no opportunity for aught save the most sincere commendation in the Annual and Cyclopaedia.

A MANUAL OF MODERN SURGERY, General and Operative. By JOHN CHALMERS DA COSTA, M.D., Clinical Professor of Surgery, Jefferson Medical College; Surgeon to the Philadelphia Hospital, etc., second edition. 8vo., cloth, pp. 911, with 386 illustrations. Price, \$4.00. W. B. SAUNDERS, 925 Walnut St., Philadelphia, Publisher. 1898.

In the preface to this work, which is quite an enlargement and improvement on its predecessor, the author says: "In the new edition no attempt has been made to alter the character or to change the purpose of the manual, although it has been practically rewritten, many entirely new articles added, and a majority of the old articles enlarged, restricted, or otherwise altered. Many of the changes and additions have been made in response to the suggestions of reviewers and of teachers of surgery."

The changes are quite numerous, too much so to enumerate here; but among them may be mentioned the following: Sections have been added upon the Surgery of the Liver and Gall, bladder, the Spleen, Pancreas, the Female Breast, Wounds of modern projectiles, Electrical injuries and the use of the Roentgen rays. The following operations have been described: Resection of the Gasserian ganglion, methods of Gastrostomy, Schedes operation of Thoracoplasty, use of the Murphy button, new methods of Euterorrphy, Bodine's method of colostomy, control of haemorrhage in Hip-joint amputation by McEwen's method, Owen's operation for hare-lip, Senn's method of resection of the shoulder-joint, etc. Ophthalmology, gynecology, rhinology, otology and laryngology have been left to special treatises on these subjects, enabling the author to give us a very complete work on General and Operative Surgery *proper* without making it too cumbersome, or treating too briefly and concisely important points that are of prime importance to

the general surgeon—e. g., his Fifty “Golden Rules for Procedure in Primary Hemorrhage” are well worth the value of the entire volume to anyone preparing himself for the practice of surgery, and would not be amiss if committed to memory by many regarded as competent surgeons. Other features that space will not permit to enumerate are full worthy of mention; however, we can without going into detail, most heartily commend this manual for the student, and the general practitioner, who wishes to have at hand for study or reference a compact and complete volume teeming with the latest approved ideas and methods of general surgery.

The illustrations are most excellent, and while it is not padded with them to the exclusion of important text, they are sufficiently numerous and fully elucidate the subject matter.

CONSERVATIVE GYNECOLOGY AND ELECTRO-THERAPEUTICS. A Practical Treatise on the Diseases of Women and their Treatment by Electricity. Third edition, revised, rewritten, and greatly enlarged. By G. BETTON MASSEY, M.D., Physician to the Gynecic Department of Howard Hospital, Philadelphia; Late Electro-Therapeutist to the Infirmary for Nervous Diseases, Philadelphia; Fellow and ex-President of the American Electro-Therapeutic Association, of the Societe Francaise d'Electrotherapie, of the Americal Medical Association, etc. Illustrated with twelve full-page original chromo-lithographic plates in twelve colors, numerous full-page original half-tone plates of photographs taken from nature, and many other engravings in the text. Royal octavo, 400 pages, extra cloth, beveled edges, \$3.50 net. The F. A. DAVIS Co., Publishers, 1914-16 Cherry St., Philadelphia; 117 W. Forty-Second St., New York City; 9 Lakeside Buildidg, 218-220 S. Clark St., Chicago, Ill.

The exhaustion of the second edition of the author's work on “Electricity in the Diseases of Women” necessitated the preparation of a third edition, in which it was found desirable to rewrite and restate so many of the facts connected with the application of electricity to the diseases of women, in order that the very latest advances might be adequately represented, that an entirely new book is the result, dealing more freely with the subject than heretofore, as well as discussing in full detail many minor points essential to success. What was originally a mere treatise on the use of electricity in fibroid tumors and certain other affections has been developed into a full and thorough

treatise on the medical and surgical diseases of women, with special reference to the therapeutic use of electricity. Dr. Massey has established a commendable and enviable reputation in this particular field, and this most excellent volume will but add thereto. He has presented the entire subject matter in a clear, comprehensible style, and we can most heartily commend his work and congratulate him in advance on the success it will surely meet.

The illustrations in themselves are far in advance of even the standard works of the day, and the paper, binding, clear and readable type are all in keeping with the excellent subject matter or even an "*edition de luxe.*"

HAY FEVER AND ITS SUCCESSFUL TREATMENT. By W. C. HOLOPETER, A.M., M.D., Clinical Professor of Pediatrics in the Medico-Chirurgical College of Philadelphia, Physician to the Methodist Episcopal Hospital, etc. 8vo., cloth, pp. 137. Price, \$1.00. P. BLAKINSTON, Son & Co., Publishers, 1012 Walnut St., Philadelphia. 1898:

The author places stress upon the specific cause of this disease, either a micro-organism or a toxin, having had a somewhat unusual experience in the study of nasal secretions. He claims an unusual degree of success in its treatment, and his little monograph is well worthy of careful study. He has made quite an elaborate presentation of the views of authorities, the greater part of his original matter being devoted to the successful treatment of one of the "betes noir" of the age. These cases are troublesome, trying and test the patience of patient and practitioner, yet he claims from an experience in over 200 cases that its curability is unquestionable.

THE TREATMENT OF CHOLERAIC DIARRHŒA, 8vo, cloth, pp. 64, Published by THE LAMBERT PHARMACAL CO., sole manufacturers of Listerine, St. Louis, Mo. 1898.

This little brochure, which will be sent to you by the publishers free of charge on request contains a number of articles by Dr. Alex. B. Briggs, of Rhode Island, R. H. Goodier, I. N. Love, of Missouri, William J. Watson, of Philadelphia, E. C. Register, of North Carolina, and other gentlemen giving practical and rational views on the subject. If you neglect to send for a copy it will be only your loss.

THE ESSENTIALS OF OBSTETRICS. By CHARLES JEWETT, M.D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, New York. In one handsome 12mo. volume of 356 pages, with 78 illustrations and 3 colored plates. Cloth, \$2.25. LEA BROTHERS & CO., Publishers, New York and Philadelphia. 1897.

The pupil in any department of learning succeeds best by first securing a systematic knowledge of its rudiments, for it is seldom that the average medical student has the necessary mental training to analyze his subject for himself. Hence, works of the character Dr. Jewett has produced, have a distinct value in medical teaching as introductory to the use of more elaborate treatises and as guides in following the didactic and practical teaching of the college course. The long experience of the author as a teacher has furnished him an accurate estimate of the wants of the student and his success in placing *The Essentials of Obstetrics* within the grasp of the pupil, is sufficient warrant that the volume will be widely welcomed.

Illustrations, both in color and in black, have been freely employed wherever they are capable of elucidating the text, and in typographical arrangement a system has been followed which should materially aid the student in assimilating the material presented.

A COMPEND OF DISEASES OF THE SKIN. By JAY F. SCHAMBERG, A.B., M.D., Associate in Skin Diseases, Philadelphia Polyclinic; Dermatologist to the Union Mission Hospital; Quiz Master in Dermatology University of Pennsylvania. 8vo., cloth, pp. 307, with 99 illustrations. Price, 80 cents. P. BLAKISTON, SON & CO., 1012 Walnut St., Philadelphia, Publishers. 1898.

From the author's preface we quote: "Designed for the use of practitioners and students, as a rapid reference work and key to dermatology.

The effort has been made to present the subject of skin diseases in a succinct and at the same time lucid and readable form. Especial attention has been paid to the differential diagnosis and treatment of the more important affections."

Duhrig's classification has been followed, with deviations in connection with one or two diseases. It is a very excellent little volume and will prove both handy and valuable when time is lacking to consult more elaborate works.

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Vol. XX. NASHVILLE, SEPTEMBER, 1898. No. 9.

Original Communications.

ABORTION:—ACCIDENTAL, ESSENTIAL, CRIMINAL.*

BY WILLIAM D. HAGGARD, JR., M.D., NASHVILLE, TENN.

Associate Professor of Gynecology, University of Tennessee; Adjunct Professor of Gynecologic and Abdominal Surgery, University of the South; Fellow of the Southern Surgical and Gynecological Association; Member of Alumni Association of the Woman's Hospital of New York, etc.

It would appear that this subject is commonplace enough, but with the voluminous literature on the subject, there yet remains a distressing lack of clearly defined rules of action in its management. Its very frequency should render it the subject of our most earnest consideration. Guillemot and Develliers assert that it occurs once in every 4 or 5 labors. It has been

*Address before the Nashville Academy of Medicine, Aug. 4, 1898.

computed that 90 per cent. of all married women have at least one abortion. The treatment while simple and efficient if timely instituted in a skilful manner, has at times occasioned every practitioner much anxiety. The discussion of the premature interruption of pregnancy is fraught with such grave responsibility that it has taxed the discretion of all thoughtful men. So much depends upon the decision for or against, that it has ever been a fruitful field for consideration. When it is deemed imperative, the choice of the correct method for its performance should receive a definite answer.

The appalling increase in criminal abortion in this country has demanded the most interested solicitude of the exponents of theology, law and social economics. The half-revealed power of the medical profession in the suppression of this evil should awaken us to our duties and potentialities. I need not recount to you the perilous sequence, immediate, and remote in the production of diseases of the uterus and appendages, and in laying the foundation for grave constitutional disorders. I have only to call your attention to the incalculable detriment to the morals and future of the Republic, to ask your indulgence in the discussion of such a well-worn subject.

I shall define abortion to be the premature expulsion of the product of conception before the end of the fourth month. I will adopt the classification of most American and English authors in considering the termination of gestation between the end of the fourth and the end of the sixth month as miscarriage, and from the end of the sixth to ninth month as premature delivery.

CAUSES.

I. *Paternal*.—Advanced age, lowered vitality, due to over-work or excesses, especially venereal, syphilis, tuberculosis, chronic lead or alcohol poisoning.

II. *Maternal*.—Causes comprised in the same general conditions as in the sire and causes personal to the woman, such as, bad hygiene, insufficient food or obesity.

Most acute or general diseases as: Abortion occurring in $\frac{2}{3}$ of the cases of Typhoid, 118 times in 213 cases of Pneumonia. The action of most infections (malaria), and many contagious diseases (exanthems) cause it by the poisons in the blood.

Influenza, by its toxic effect on the vaso-motor system or perhaps by the mechanical effect of coughing. Eclampsia may cause death of the fetus, ptomanic poison, or possibly consulsive action of the uterine muscle. Chorea, likewise produces it by the exhaustion from the almost incessant muscular action. Diabetes, Pulmonary and Cardiac diseases are also enumerated. Genital excesses act by mechanical means and are the cause of the rather frequent abortion of young women five or six weeks after marriage. This fact is best illustrated in the case of prostitutes. Minor surgical operations, such as the extraction of a tooth, is an example of the class of reflex causes. Any shock, moral or physical, may be sufficient to precipitate an abortion. Sudden fright, acting on the nerve centres, causes a severe spasm of the uterine muscles, which may cause placental apoplexy. A clot forms which, acting as a foreign body, gives rise to uterine contractions which may result in a few hours in abortion.

III. *Local*.—Retro-displacement of the uterus is the most frequent. The womb is unable to expand in its unnatural position.

Fibroid tumors or adherent adnexa act by interference with involution. Sub-Involution with its concomitant endometritis, causes from 10 to 15 per cent. Extensive lacerations of the cervix do not allow the proper support to the ovum from below, and it simply drops out. Trauma may, of course, be causative.

IV. *Foetal*.—Anything which causes death of the embryo. Syphilis conspicuous.

V. *Placental*.—Degeneration of the villosities of the chorion, hydramnion, and vicious insertion of the placenta constitute the chief pathology of the placenta occasioning abortion.

Habitual Abortion. This term is used to designate the repetition of abortion at or near the same period of gestation, in successive pregnancies. It is due to one of the causes above enumerated, the most frequent of which is syphilis, paternal or maternal, causing either death of the foetus or fatty degeneration of the placenta. The detection of the cause is the key to its correction.

Modus of Premature Expulsion.—An attempt has been made in passing, to accord the accepted explanation of the production of abortion by the various causes enumerated. In the majority

of instances the nervous system is the operative agent. The nerves centres incite the uterus to contraction, the resistance of the cervical segment is gradually overcome. The dilating effect of the ovum follows its partial detachment, from contraction. The hemorrhage occasioned by this detachment further stimulates the uterus to renewed contraction. The products are then expelled in any of the following ways:

- (1). The foetal shell may be expelled entire (early and infrequent.)
- (2). The foetus, amnion and chorion may be detached at the decidua serotina, leaving the decidua vera (usual).
- (3). The foetus alone may be expelled, leaving the amnion, chorion and vera (common).
- (4). The foetus and membranes may be cast off after the placenta is formed, it being retained.

Abortion during the first month gives rise to symptoms simulating retarded menstruation. The ovum is expelled entire, but it is so small that it is rarely discovered. When the membranes are ruptured in spontaneous abortion in the first three months a suspicion of criminal abortion arises.

After the third month the uterine contractions being more powerful may rupture the membranes, and if the placenta has not been detached by contraction and hemorrhage, the abortion is completed in two stages, viz : 1. Escape of the embryo. 2. The expulsion of the membranes.

When the membranes are ruptured, the embryo escapes, the thin umbilical cord breaks, and the cervix commonly closes.

Whether the membranes will be thrown off subsequently is problematical. There is greater danger of retention of portions of the product at this early period of the development of the placenta than later or at term, because of its imperfect construction and more firm union to the hypertrophied decidua. When delivery is accomplished in two stages the placenta and membranes usually follow in from fifteen minutes to an hour. If it is not thrown off in four hours, it may be said to be retained.

SYMPTOMS.

In the first two months abortion is usually sudden and rapid. There may be considerable lumbar pain, and a dull, heavy

cramp-like pain. On the other hand there may be little hemorrhage or pain, and the woman regards it simply as profuse menstruation. The evidences of abortion escape notice. After the third month it resembles normal delivery more in duration and pain, which is more severe and rhythmical. The hemorrhage is likewise greater.

I wish to direct attention to hemorrhage as the most frequent initial symptom. It usually precedes the pain because the early contractions may be so slight as to be unnoticed.

Vomiting is also an attendant inaugural symptom. A vaginal examination is imperative, not only to establish the diagnosis with certainty, but to determine whether or not the impending abortion may be averted.

A *threatened* abortion is *inevitable*:—(1). When the membranes are ruptured. (2). When the foetus is dead. (3). When any part of the ovum is engaged in the cervix. The clinical determination as to whether it is inevitable or not is found in the dilatation of the cervix. If, with this condition, the hemorrhage persists, the pain is unabating, the ovum descends and is felt through the dilated cervix, or portions of it escape, then abortion is unpreventable. The essential question of treatment of *threatened* and *inevitable* abortion, to be considered later revolves on this decision. Abortion having occurred, the discrimination between *complete* and *incomplete* is paramount. If the uterus has contracted, the os closed and retracted, the hemorrhage ceased and pain subsided, these may point to completion of the process. But to make the diagnosis positive the mass expelled should be carefully examined. The chorionic villi present a characteristic shaggy coat when floated in water. It resembles a chestnut burr. The mass should be carefully scrutinized and gently teased apart, to aid in ascertaining whether the membranes have all been extruded.

If fortunately the act is complete, no further solicitude need be entertained. The case progresses rapidly to a favorable conclusion.

Incomplete abortions comprise all the varieties heretofore mentioned. The only immediate evidence of its incompleteness is furnished by the examination of the product expelled. The patient may appear perfectly well for a time, but

there exists the most certain and insidious conditions for future and speedy mischief. The dangers that menace her well-being are hemorrhage and sepsis. The first may be continuous from the time of the partial delivery or may recur with sudden and furious onset. It may continue without interruption fitfully for weeks, or until the remnants have all been shed.

It is apparent that such retention constitutes the best possible soil for the development of sepsis. The uterine mucous membrane in the first three months is hypertrophied and thick before it has undergone the physiological atrophy that begins at the end of that time. It differs materially from the thin, delicate membrane at term. This thickened decidua after its relations are disturbed, dies from the cutting off of its blood supply. The element of sepsis is only needed and this is quickly furnished, and is usually the streptococci. Its invasion is insidious, but when multiplication has taken place, it expresses itself in a very decided manner. Chill or rigors commonly, followed by temperature and increased pulse-rate. Fetid discharge is usually present. The constitutional symptoms vary according to the dosage of the attack, and it may range from a mild intoxication to a rapidly fulminating attack, quickly succeeded by peritoneal extension and its consequences.

TREATMENT.

- I. *Prophylactic for Habitual Abortion.*
- II. *Preventive in Threatened Abortion.*
- III. *The Treatment of Incomplete Abortion.*

In a woman who aborts habitually, the exact cause should be defined and treated accordingly. Syphilis being the most prevalent cause should be sought for and treated. If in doubt as to which parent is guilty treat them both.

The other maternal causes, such as anemia, plethora and general systemic conditions should be removed. Displacements which have been seen to be second in importance as a causative factor should be rectified. A properly fitting pessary for retroversion has brought many women to term without accident. Laceration of the cervix should be repaired according to the method of Emmet. Pregnant women should, as a rule, be enjoined against too frequent copulation, violent exercise and hard labor.

In the class, who present no well-defined cause, and yet habitually abort, it sometimes becomes necessary to keep them in bed absolutely from the sixth week to the fifth month. As it is known that the accident is more prone to occur at the time of the menstrual period, a compromise on recumbency for a few days, prior, during and subsequent to the period might answer.

In *Threatened Abortion* absolute composure in bed and perfect quietude is necessary. Full doses of opium every two hours is indicated, and the efficacy of viburnum prunifolium has many advocates.

If there is hemorrhage, a firm tamponade of gauze may be necessary to control it, but, even as a vaginal tampon is liable to stimulate uterine contractions, I do not think its use would be justifiable, save in cases of hemorrhage.

In *Inevitable Abortion* the attitude of the practitioner is one of non-interference, until nature proves inefficient in completing the process. There is one sovereign remedy in this stage. One that cures every indication. I refer to the tampon. This will check the hemorrhage for the time, stimulate the uterus to contractility and be a trustworthy barricade against sepsis. The simplest and best material is iodoform gauze. The vagina is best packed in Sims' position. The entire canal should be vigorously antisepticized by pledgets of cotton in bi-chlorid, 1-2,000. Rigid and efficient asepsis of hands and instruments and dressings are demanded, for here as elsewhere "the willing and gentle but unclean hand" is the greatest danger. A plug of the gauze tampon should be inserted in the cervix and the vagina tightly packed. This is usually successful in terminating the process in a few hours, and when the gauze is removed the foetal ball will be found in the dressings. If, however, everything has not come away, the dressing may be repeated with the same scrupulous regard to cleanliness. If after repetition of the dressing there is still retention of membranes, our duty is to empty the uterus without delay. This is just as incumbent as to remove a retained placenta at term, and for the same reason. Neither delay or expectant measures are permissible. There has been no case of death in Bellevue from this condition since the custom of emptying the uterus in every incomplete case has been adopted. An eloquent plea for aseptic environs is

found in Pinard's statistics. The mortality of cases beginning in the hospital was .8 per cent. The death rate in cases beginning outside was 27.6 per cent,

Anaesthesia is necessary for thorough and complete work. When the preliminary "scrubbing up" of the vagina is completed the patient may be allowed to remain on the back or placed in Sims' posture as the operator elects. The cervix is fixed with tenacula forceps and the cervix dilated with steel-dilator until it will admit intra-uterine exploration with the surgically clean finger. This is the best instrument for this purpose. The whole interior may be explored and the retained products loosened and removed. Occasionally a forceps will be needed. The endometrium should then be carefully and systematically gone over with the sharp curette. There is no danger in a curette in this condition in gentle and competent hands. The layers of decidua will escape finger of forceps; but will be surely detached by curetting. Large bulks of placenta and membrane will elude the curette that can be extracted with a crook of an aseptic finger. Each has its uses for definite purposes. The cavity may then be irrigated with boiled Salt Sol. (3*i*-pt.) and a strip of iodoform gauze carried to the fundus to excite contraction and to drain. It may be tied to vaginal gauze to facilitate removal in 24 to 48 hours. Bi-chlorid douches and vaginal packing for a few days will be all that is needful. In cases septic from neglect or delay, I conceive the sharp curette is absolutely contra-indicated. By its use the efforts of nature to prevent rapid toxemic invasion by throwing out a zone of leucocytes, under the endometrium as a barrier, will be destroyed. Lymph spaces will be thus opened and unprotected from infection. It is quite impossible to bacteriologically cleanse an infected uterus by any amount of curetting and irrigation. You will appreciate that the mechanical scraping will remove this protective area, and very likely inoculate the denuded underlying tissue. All that can or should be done after the removal of the bulk of placenta or membranes, with finger or forceps, is to gently remove the flakes of decidua, the culture-medium for bacteria, by a dull curette, supplemented by antiseptic irrigation and drainage. This gets rid of the supply of sepsis, leaves nature's bulwark undisturbed and drainage

completes the cure. As an auxiliary to the dull curette, I use a pledge of iodoform gauze wrapped on a long forceps, which is rotated in every direction so as to wipe out the cavity. It is a very simple and harmless way of removing detritus. Badly septic cases may require repeated intra-uterine irrigation, together with the general measures for combating sepsis.

The consecutive complication of post-abortum infection, can not be considered in the scope of this paper

ESSENTIAL.

Thomas gives this rule:

"Whenever it is felt that the prolongation of pregnancy is going to destroy the life or intellect, or to permanently ruin the health of a patient, abortion should be brought on." To accept my own views, I will add *and only then*—The conditions rendering this imperative may be listed as:

1. *Uncontrollable Vomiting*.—This is the protest in my opinion for many unnecessary procurements. It is rarely absolutely indicated and then only after the approved general and local measures have failed. The correction of a displacement, the application of silver solution to the cervix, administration of cerium, ipecac and ingluvin will often render it needless. Milk through the tube followed by gastric lavage will frequently be retained, and rectal alimentation will keep up nourishment. If emaciation progresses, pulse becomes weak and rapid and the fever of exhaustion supervenes, it should not be delayed further.

2. *Renal Disease*.—Especially interstitial nephritis, where a milk diet does not decrease the albumen.

3. *Pulmonary Disease*.—When advanced.

4. *Cardiac Trouble*.—Only when the dilatation is not compensated by the physiological hypertrophy of pregnancy.

5. *Chorea*.—In extreme instances; in hope of benefiting the condition; to prevent insanity.

6. *Pelvic Deformity*.—That will not permit the induction of premature delivery, and unless the mother elects a Cæsarean section.

7. *Cancer of the Uterus*.—Only when too far gone to wait for viability, or the woman refuses the Porro.

Uncontrollable hemorrhage is not an absolute indication unless it is late enough to indicate placenta previa. Many women

who lose enormous quantities of blood in a threatened abortion, appear moribund from exsanguination and yet rally and go on to term under appropriate treatment. Consultation with at least two practitioners will commend itself to the wisdom of all prudent men.

Mode of Induction.—No physician of any scientific attainment whatever, would consider for a moment the employment of drugs. The sound is a stupid and barbarous way. It kills the foetus surely enough, but "it is left to rot in its shroud." The tent can only be a honey-comb for bacterial multiplication. The safe and scientific way is the method of Thomas. Under aseptic precautions, and with the patient under ether, the cervix is forcibly dilated and a glass stem introduced and packed tightly with a vaginal tamponade of gauze. In a few hours the resulting contractions will throw the foetal shell off. Should it fail to do this, or if the surgeon prefers and is sure of his asepsis, he may remove the entire product as described for incomplete abortion.

CRIMINAL ABORTION.

When we consider its great prevalence; its alarming and steady increase in all grades of society; its hurtful influence on health, happiness and morality, and the deleterious effect upon posterity, it becomes a matter of the most insistent importance. It has been asserted that more lives are annually sacrificed by the unnecessary and intentional destruction of the human fetus than are saved by quarantine, drainage, sewerage, vaccination and antiseptics combined.

The "Report of the Special Committee on Criminal Abortion," appointed by the Michigan State Board of Health, calculates, as the result of its investigation, seventeen abortions that come to the knowledge of the profession to every 100 pregnancies. Estimating as many more that do not come to light they compute 24 per cent., or one-third of all cases ending in miscarriage. They further report that in the United States fully 100,000 criminal abortions occur annually, and over 6,000 die from the immediate effects. This pernicious practice has been the curse of all times, and one of the most potent agencies in the fall of many civilizations. It is fearful to think of the countless millions of unborn human beings who have thus been slaughtered—many of whom might have been of priceless benefit to society.

wholesale and cowardly murder of innocent and children has been done viciously, but more has been ly through misconception of the nature of the crime through misinformation about its deleterious and consequences.

tainty of the law relative to the heinousness of the ds an arbitrary period of quickening, and the con- ual ignorance of the mother of the fact that "life" nent conception occurs, and to destroy the spark is ruly murder as to brain, or strangle the babe as it ie world.

en said that from 75 to 90 per cent. of criminal r in married women. She has infinitely less justi- the deceived, forsaken and frenzied girl who risks get rid of the evidence of her shame. Many good y women do not believe they are doing wrong to on procured before quickening. They are prompted motives of ease, distaste for maternity, the specious ; already enough children, inability to care for and

She is further actuated to this unnatural crime nt and flamboyant advertisement of abortion nos- ucular and, I regret to say, religious press, which correct all suppressions of the menstrual function. explicit directions to *pregnant* women to abstain on account of their certainty to produce abortion, nd disappointed in the efficacy of the vaunted rem- erate girl or demon-possessed woman is spurred on. Here is the harvest of the bloody-handed He is here in our midst. We all know them. quitous in every town and village, infesting every aps holding membership in many medical societies. plotting with unfortunate and unwomanly women and unjustifiable murder of their unborn babes, he was hung and scarcely a one convicted. They not the only ones appealed to. A writer in the *Journal* says: "Every man who undertakes the edicine is met upon the threshold of his career by st powerful, baneful, damning combinations of at can possibly assail the human heart. All that

is good, all that is evil within him, is subjected to the utmost pressure that can be brought to bear by the combined influences of pity, sympathy, and sometimes greed. Youth and beauty on bended knee, with clasped hands and streaming eyes, implores help with more devoted earnestness of purpose, with more burning reality of feeling than that with which it approaches the throne of grace."

This is, indeed, a stirring and saddening experience. No self-respecting man, with the courage to do his simple duty and the rectitude to decline to do murder, can dare to swerve from what he knows to be right. "I will give no deadly medicine to anyone if asked, nor suggest any such course, nor will I conspire with a woman to destroy her unborn child." But I conceive we can be of immense assistance to the poor unfortunates who thus apply to us. We can save many half-crazed young women from taking this desperate step by a vigorous recital of its perils, and an appeal to her love of self-protection to find some other way out of the dilemma. One end of the horn may be the muzzle of a shotgun and the other a lying-in retreat. We can peremptorily dissuade a misguided married woman who prays for relief of her burden, because she cannot suffer another child, by asking her why she does not implore us to kill one of her other children instead of the innocent babe in her womb, and by telling her the crime is equally as great and would be much safer for her own life and health.

This subject has always been one of vast solicitude to the profession. When the American Medical Association met in this city in 1857, a strong committee was appointed to report upon criminal abortion with a view to its general suppression. Later the association published a prize essay by H. R. Storer, of Boston, entitled "Why Not? or A Book for Every Woman," in which the wickedness of the crime was set forth and condemned, and its harmful effect and dangers explained. This did great good, but we need another Moses to lead us out of the wilderness of crime.

The cause of humanity is somewhat protected by the fact that any man who will commit an abortion cannot, as a rule, do it with safety. Out of 116 cases of criminal abortion, collected by Tardieu in Paris, 60 died outright and many had a lingering

convalescence. If there were no other functions for a Bureau of Public Health in this country than the stamping out of the criminal abortionist, the increased population and future prosperity of the United States would amply justify its creation. We have a Bureau of Animal Industry for the prevention of disease among cattle and the detection of trichinosis in pork, yet there is not a law that is operative in the prevention of the wanton and wholesale slaughter of these human beings. Our nation has just concluded a relentless war at an enormous expenditure of money and the cost of many valuable lives, to avenge the cowardly murder of 256 sailors. The tremendous daily output of abortion-mongers outnumber many times over the unfortunate victims in the Maine disaster, and yet there is not a voice of official protestation raised at this unholy warfare.

ANOTHER CASE OF THE ETERNALLY GULLIBLE.

LOUIS LEROY, M.D., NASHVILLE, TENN.,
Demonstrator of Histology and Pathology in Medical Department of Vanderbilt University.

I notice from one of the recent magazines a short article in regard to the new alleged discovery of Dr. Schenck, by means of which he proposes not only to foretell the sex of the child in utero, but if his diagnosis of sex be not in accordance with the desires of the parents to actually *change* the sex to order.

The article in question goes on to describe the case of the Countess of Warwick, who has recently become the happy mother of a son, which son, however, if we are to credit the article, started well on in his earthly mission in the guise of a daughter.

The Countess, poor ignorant mortal, had, up to the timely intervention of Dr. Schenck, been going along taking exercise, riding horseback and allowing her constitution to become permeated with oxygen.

It was but the work of a moment for the lynx-eyes of the doctor to discover that she had but 4,000,000 red blood cells per

cu. m.m. of blood, which condition, were it allowed to run on unabated, would result in the certain production of a *female*—horrible to contemplate!

But, no. The designs of Providence were to be thwarted. By proper hygiene and nutrition the blood count was rapidly run up to 5,000,000, and, behold, she bore a son, a living monument to the prowess of the mighty physician.

All this at first sight might (especially dealing with Countesses and foreign physicians of "great repute," and couched in attractive language,) seem plausible, but let us consider it seriously for a moment.

To begin with it might not be pleasant for some of us to contemplate the fact that our mothers and sweethearts were nothing but the results of some previously impoverished blood. As women are here in a majority the inference is that the marriageable women, not only in civilized communities but among savages as well, are struggling through life with a deficit in their red cells.

I would venture the statement that there is not a physician who has been in practice any length of time, but can recall many cases in which very anemic women have borne sons, many of whom have grown up to vigorous manhood.

But let us accept, for sake of argument, that the sex can be definitely foretold.

Anyone with a slight knowledge of embryology knows that the sexual organs are among the first to develop. In fact at the eighth week, while the foetus is but fifteen to eighteen lines ($1\frac{1}{2}$ inches), and weighs but two drachms, the sex can usually be distinguished by the unaided eye.

A change of sex here, then, would necessitate the reabsorption of all the organs thus far produced, and the mesoblastic cells would then most certainly be obliged to "hustle" in order to complete a new set of organs more in keeping with the mother's blood count.

All this process, of course, would be in strict accordance with our known laws of anatomy, histology and embryology.

When, oh, when, will the people cease to "imagine vain things?"

Selections.

SYPHILIS:—Among all the diseases that afflict humanity there are none accompanied by as many morbid processes and affecting so many tissues of the body as syphilis, and none equal it in the endless variety of manifestations. In its progress it imitates and at different times, assumes the livery of innumerable diseases of the skin, requiring on the part of the physician a profound knowledge of its pathology to trace it to the original lesion. Often the initial lesion has disappeared before the attention of the physician is called to the disease, or been hidden from view by its obscure lodgment, when the difficulties of diagnosis are multiplied, but by bearing in mind a few of the following features of the disease they may be largely overcome—
1st, a chancre with an indurated base un-ant-o-in-oculable, with multiple glandular involvement. 2d, a sharply limited round cell infiltration of the upper part of the corium and accompanying papillæ. 3d, an incapability of the cells for a higher organization. 4th, retrograde changes of fatty degeneration, and absorption or ulcerative degeneration, which invariably begin in the centre or oldest part of the infiltration. 5th, red and engorged fauces, with a tendency to development of mucous patches, and finally chronicity with recurring proclivity of the eruption. There is also an absence of the subjective symptoms, such as itching or pain that attend other similar morbid processes. There are but few diseases accompanied by ulceration, and they are mostly lupus, lepra, epithelioma, varicose ulcers and syphilis. The first mentioned generally have special seats for development, or are at once recognized by their history and concomitants, so when ulcers are found in syphilis, by a process of exclusion, we can readily arrive at safe conclusions in diagnosis. The first lesions of the skin are small, superficial, abundant and in the upper part of the corium, with a symmetrical and general distribution, whereas, later lesions are deeper, larger,

less numerous, and more regional, resulting in graver injuries to the tissues when terminating in ulceration. The lesions of the skin appear generally in order as follows: 1st, macules; 2d, papules; 3d, vesicles; 4th, pustules; 5th, tubercles; 6th, gum-mata; but papules and pustules may be the first skin manifestations, while tubercles and gum-mata are always later lesions, accompanied by bone, visceral, or nerve involvement. There are three conditions that qualify the course of syphilis—the constitution of the patient, his hygienic surroundings and the virulence of the poison. A scrofulous subject, an aged or very young person or one who indulges to excess in alcohol, or irregularities of life will become the victim of its gravest form. Syphilis, like other diseases may be benignant or malignant. It may be so insignificant in its pathology as to require very little treatment, or it may be so malignant as to engage our most watchful care. The safety of the patient requires intelligent and persistent treatment as long as there is the least evidence of constitutional contamination. He should be as pliant as wax in the hands of the physician, or the physician, for his own reputation, should abandon the treatment. As soon as the disease is recognized, treatment should begin, both constitutional and local. Constitutional treatment should take the lead,—some preparation of mercury should be resorted to, and if it agrees with the patient, the proto-iodide is the best, beginning with 1 grain, three times a day, or as much as can be given without causing ptyalism. If griping and diarrhoea ensue, add a little opium or hyoscyamus to the proto-iodide and continue this preparation of mercury until the eruption of the skin disappears, when the dose may be reduced until no more than $\frac{1}{2}$ of a grain is taken in 24 hours. The local treatment should consist of mild antiseptic, astringent and sedative applications to the chancre. Calomel, 1 part to 10 parts of subnitrate of bismuth may be dusted on the chancre two or three times a day, or a pledget of lint saturated with "black wash" may be used to advantage. Caustic applications should be avoided unless there should be some special indications for them, such as phagedenic tendency. We find anemia in this disease very often a troublesome feature, in which case, it will be necessary to resort to iron in some form in connection with mercury, and when we can safely suspend

the mercurial treatment as above outlined, to meet indications, as alteratives, restoratives and tonics, we have derived remarkable results from the exhibition of the "six Iodides" as prepared by the "Walker-Green Pharmaceutical Company." This preparation contains all the medicinal ingredients desired, in a most acceptable form with the proportions definitely given in the formula on each bottle, so that it can always be intelligently prescribed. We have here iron, potash, manganese, mercury, soda and arsenic combined with iodine, and such aromatics as are calculated to render them palatable and efficient. Each one of the iodides in this preparation wields a power and performs a duty in the way of eliminating toxic material and restoring tone to the debilitated organs of a syphilitic, but that power is tenfold increased by the combination of this preparation. It can be given for an indefinite period without unpleasant effect. It may also be combined with other medicine indicated at any period in the treatment. It is not safe to discontinue treatment, or at least observation of the case, until one year has elapsed after the complete disappearance of every symptom of the disease. If at any time nervous or visceral complications arise it may be necessary to give in addition to the "Six Iodides," as much iodide of potash as the system can tolerate, to be withdrawn as soon as these conditions are eliminated. We should always bear in mind that we cannot trifle with this disease, as the interests of the patient may not alone be involved, but those of his offspring and society at large.—*St. Louis Medical Era.*

INHALATIONS OF VINEGAR TO CONTROL NAUSEA AND VOMITING AFTER ANESTHESIA.—The *Philadelphia Polyclinic* of February 26, 1898, contains an article on this subject by Dr. J. D. Rugh in which he tells us that many and varied are the methods proposed and used to overcome this disagreeable and frequently serious symptom, but all have proved only partially successfully. In one of the Boston hospitals the injection of atropine prior to beginning the anesthetic was followed very carefully and for a long time on the principle that it would stimulate the inhibitory vomiting center which was supposed to

be paralyzed during complete anesthesia, which fact may be but one of the causes acting rather frequently, but its use was only partially successful. The combination of morphine and atropine has been used but has not been found satisfactory. Bromide, chloral and other antispasmodics have also been administered with a varying degree of success.

One of the simplest and most satisfactory methods of controlling this condition has been the administration of strong vinegar by inhalation. The use of vinegar in this manner for vomiting was first proposed in 1829 and was practised from time to time by various surgeons, but it remained for Mackenrodt to apply it extensively for vomiting following anesthesia, he probably having adopted it from the recommendations of earlier surgeons who lived in both the pre-and post-anesthetic days. Its beneficial action is explained by Lewin as due to the neutralization of the free chlorine, one of the products of chloroform, by acetic acid. The chlorine acts as a marked irritant to the pharyngeal mucous membrane and induces vomiting, but it is neutralized by the acid, which soothes the irritated parts as well. Ether, however, is much more directly irritating to the respiratory passages during inhalation, but the vinegar gives as satisfactory results after it as after chloroform narcosis. The simplest explanation of its good effects is that its pungency stimulates—it being too dilute to exert any irritative action—the respiratory mucous membrane, promotes the normal secretions and, by its soothing action upon the peripheral nerves of the parts, lessens the irritability of the pneumogastric or its centers, and the reflex condition of vomiting is controlled. Furthermore, that vinegar is a restorative and soothing stimulant to the respiratory tract and to the nervous system is well attested by its widespread use among the ladies in their vinaigrettes in place of "smelling salts." In certain countries the pungent qualities of the aromatic vinegar are used almost to the exclusion of the ammonia or lavender salts, and all because of the more refreshing effects following its use.

Whatever the correct explanation may be, certain it is that, in cases which have been properly prepared for operation and whose stomachs have not been filled with blood during the operation, it almost, if not completely, prevents vomiting. The

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method of administration is by saturating a towel or cloth fresh, strong vinegar (preferably that made from cider) holding it a few inches above the patient's face, or hang from the bedstead, so that it will be near his head. It : be used directly after the anesthetic has been discontinued kept up continuously for hours.

In one case, to which ether had been given, nausea soon, but ceased in about one and a half minutes after using vinegar. This was then removed, and the nausea returned again disappeared after the vinegar was given. The action so marked that the process was repeated five or six times to verify the conclusions, and each time the result was the same as at first noted, the patient quickly becoming quiet as though going under complete anesthesia.

Another case was given chloroform for the removal of laryngeal growths and swallowed considerable blood. Vomiting of the clotted blood occurred, but ceased immediately after which did not return.

These have been duplicated by about twenty-five cases whom the action was almost uniformly beneficial. The relief from thirst to the patient is most marked, and the reflex effect is both grateful and welcome to the sufferer. Its simplicity and efficiency commend its use to all having aught to do with such cases. It is also free from any toxic effects, and can occasion no harmful conditions.—*Therapeutic Gazette*.

EARLY EVACUATION OF THE BOWELS AFTER ABDOMINAL SECTION.—H. T. Byford (*Amer. Jour. of Obstet. and of Women and Children*, July 1, 1898) under the head of Improvement in the After-treatment of Peritoneal Section makes a plea for securing movement of the bowels and passing of flatus immediately after abdominal operations. He believes that intestinal paralysis or obstruction is more often the cause of fatal sepsis, either wholly or in part, than vice-versa, and in many cases the septic matter finding its way through the stretched intestinal walls. His observations have led him to believe that exposure of the peritoneum, handling of the viscera, production of raw surfaces and leaving dead matter (l

oozing and debris) are followed by intestinal adhesions in from 12 to 36 hours, and that these adhesions produce more or less intestinal paralysis and sometimes obstruction. Many gynecologists have recognized these facts and are always anxious to move the bowels after sections, but these efforts are usually begun too late or are not employed with systematic thoroughness. His routine method: On the day before a peritoneal section, the patient is purged sufficiently to reduce the gaseous distension of the intestinal coils (that they may be kept out of the way during the operation), obtaining as many as 6 or 8 large stools, while patients of relaxed fibre receive full doses of strychnine from the time they first come under observation. Two hours before the operation two teaspoonfuls of the fluid extract of cascara are given. Immediately on awaking from the anaesthetic the patient receives a drachm of magnesium sulphate every hour; at the end of 6 hours a stimulating enema is administered and repeated till gas passes between enemas; then the saline is discontinued. In simple operations, where undue haste is not necessary, the salines and enemas are given a little later. The author presents as presumptive proof of the value of this method a record of 105 consecutive recoveries after peritoneal sections, since its adoption. He claims, not the discovery of a new treatment, but the development and systematizing of an imperfectly recognized one and the demonstration of its value.—*H. A. R.* in *N. C. Med. Jour.*

A METHOD OF RESUSCITATION IN APPARENT DEATH FROM ANESTHETICS.—Herzog gives the results of some experiments he has undertaken on animals with a view of testing the efficacy of Laborde's method of "rythmical traction of the tongue" in cases of apparent death from drowning and anesthetics. Laborde described his method at the Medical Academy in Paris in 1892. His attention was first directed to the question by observing the good results which he obtained in the laboratory on narcotized animals, by rythmical traction of the tongue. In eight cases of drowning, where the animal was kept under water for three and a half minutes, resuscitation took place in five cases. In Sylvester's method animals cannot be revived after

one and a half minute's submersion. The directions for the use of Laborde's method are as follows: Place a piece of linen round the tip of the tongue, and grasp it with the thumb and middle finger, now pull the tongue forward with a jerk, and then relax it again; repeat this maneuver 20 times a minute. A sense of resistance is felt in the tongue before there is any attempt at respiration. Traction should be continued for 30 or 60 minutes. Herzog experimented on dogs. He administered chloroform till the respiration had ceased for one and a half minutes. He found that Laborde's method was useless in cases of asphyxia in a late stage of narcosis. In an early stage of narcosis, however, Laborde's method is distinctly useful when associated with other forms of resuscitation. Traction on the tongue is said to stimulate the centres in the medulla; this necessitates an increased blood supply to the part. The respiratory centre is in close proximity to the centres concerned in the movements of the tongue, the beneficial effect would therefore act on both.—*Times and Register.*

INJECTIONS OF ALCOHOL IN CARCINOMA.—A detailed description and careful estimate of the results thus far obtained from the treatment of cancer by injections of alcohol, is given by Sajous, in the *Monthly Cyclopædia of Practical Medicine* for January. Beginning with the eighteen cases of mammary carcinoma treated by Hasse twenty years ago—with fifteen complete cures and no recurrence—the survey closes with Kuhs recently reported cure of primary cancer of the nasal pharynx. The author decides that this last case, added to the others, "establishes alcohol on a basis seldom equaled by any agent proposed. It is safe to state that if tuberculin had had to its credit but half of the *bona fide* points already noted in favor of alcohol in the treatment of cancer, it could have withstood the test of time." The remedy acts by forming a consecutive-tissue-capsule around each growth, causing obliteration of the blood-vessels and contraction of the neoplastic tissues. According to Hasse, the effect on the general health is even more surprising. The pain and uneasiness pass away, and sleep, appetite, assimilation and strength return in a most remarkable manner. By employ-

ing alcohol in different varieties of tumor, rapid reduction in the size and growth has been produced, but it was found that if too much be injected at one time, sloughing of the growth and general intoxication of the subject will follow. To secure a successful result, the treatment must be carefully conducted.

In the cases reported as cured by him, Hasse injected a mixture of thirty parts of absolute alcohol to seventy parts of water twice a week around the tumor, as well as into any infiltrated glands. The quantity injected varied according to the size of the neoplasm, and sometimes reached twenty Pravaz syringefuls. The only inconvenience observed was pain (for which local or even general anesthesia might be resorted to) and, occasionally, slight intoxication. In order to avoid making the injection into a blood-vessel, Hasse inserted the syringe-needle deep into the tissues, then unfastened it, leaving the canula in place. He then waited a moment; if the blood did not issue from the canula he readapted the syringe and made the injection; but, if blood did flow out, he removed the needle and made another puncture elsewhere. Under the influence of these injections the tumor diminished in size and soon became less painful. The treatment should be continued for some time after apparent cure, at intervals more and more prolonged.

In conclusion, an earnest plea is advanced that alcohol be given the faithful trial in this affection which it seems to merit.
—*Medical Times.*

THE FOLLY OF UNJUST CRITICISM.—For those who are amenable for just criticism we make no apology, but when the editor of a prominent medical journal, seated securely in his sanctum, a thousand miles and more from battle fields, seizes upon the report of a newspaper correspondent, and allows himself by such sensational means to be wrought into unwonted furor, it were well not only to assure himself of his facts, but the reasons therefore, before assuming censorship of the surgical section of the army, and imputing to the Surgeon-General and his associate the crime of neglect in failing properly to provide at once and upon the spot, for nearly two thousand wounded men. Does the criticising editor realize that in such an emer-

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gency it would require a regiment of surgeons to re-
diate attention to all of those in need?

True there were not ambulances and cots at hand
never more needed than after the battle of Siboney,
could not be created on the field, and it is well known
available means at that moment was subordinated
purpose of placing fighting men at batteries at the front.

It must be remembered that surgeons were not in
It must be borne in mind that prodigious efforts on
part of the army enabled it to make its way through
led and untrodden defiles, and that supplies of all sorts
stores included, must follow as they could. What was
that when our brave men were falling by hundreds in
ambush, cots and ambulances were not at hand.

It is not our purpose to pass judgment upon no-
ports, but we submit that it is anything but just to
seal criticism upon the surgical arm of the service with
edge of extenuating facts.

The reply to this severe criticism of Surgeon-Gen-
berg appears in the *Medical News* of August 6, in which
"Every one who has read the papers knows about
ties encountered in landing supplies at Sibony.
under such circumstances, the fighting men with the
rations necessary for their subsistence were first landed
ried to the front. The "Relief," loaded to her utmost
with medical supplies, arrived at Siboney four days
fight at El Caney. That she was not able to get in
was a great disappointment to me, but was no fault of
cal department. I asked for a hospital ship in good
there was unavoidable delay in securing a suitable vessel
preparing her service."

Could the critic have been superior to his critics?
Could ships wait upon his pleasure? Or the surf sweep
an army give place to ambulances in such a time as that
are emergencies in war, and provisions most needful
times and at once be made. It would be better to
rather than to criticise when officers of every grade
brave and true are making for those who lag behind
ous history.—*North American Practitioner.*

PULVOLA.—A Baby Powder on a Scientific Principle.—The serious attention of the medical profession should be very strongly drawn to the question of a proper dusting-powder for infants. The renal secretion of the child coming in contact with the delicate skin causes an irritation which is trying to the good nature of the infant.

Starch powders soon show their weak point by becoming an irritating mass of paste which ferments easily.

Talcum being a mineral substance and not subject to fermentation, has largely superseded starch, but it is not without serious drawbacks. Talcum when dry is a mass of needle-like crystals. It absorbs moisture and becomes actually mud and as irritating to the skin as a wet pack.

To many babies Talcum is a violent irritant and certainly is not a rational protective.

What is needed is a protective dressing which will repel the moisture instead of absorbing it.

Any oleaginous substance like vaseline or olive oil will do this. These can not be recommended because of their uncleanness. Some chemical combination of an oleaginous substance with a mineral base is the desideratum.

Pulvola (a stearo palmitate of calcium or magnesium) is such a powder. It is practically a powdered oil possessing the following characteristics:

1. A very light powder.
2. From 8 to 10 times the covering power of starch or talcum.
3. Adheres closely to the skin.
4. Is impermeable to moisture.
5. Is absolutely impalpable.

A soft, light powder which when applied sticks closely and sheds water like oil.—*Clinical Recorder*, January, 1898.

Samples will be freely given to all physicians. Pulvola Chemical Co., 100 William Street, New York.

A NEW BLOOD PARASITE AND THE FEVER ASSOCIATED WITH IT.—A paper by Dr. E. W. von Tunzelmann on the health of Chefoo, in the "Medical Reports of the Imperial Maritime

Customs," No. 2, 1898, contains much valuable information in regard to malaria. Dr. von Tunzelmann, who had excellent opportunities for observation, made some careful and elaborate investigations into the bacteriology of malaria. The report is far too lengthy to transcribe in full, but many of the remarks contained therein are interesting in a high degree. Referring to case No. 4, Dr. von Tunzelman says: "I have put this case last, though it was actually my first, because it was very complex, the non-malarial remittent fever, to which the fatal issue was due, being mixed with a malignant form of malarial quotidian. As I wish to confine myself solely to the former disease, not to extend my paper to an excessive length I omit any detailed account of the symptoms. The patient was the commander of a coast steamer. He had been severely ill for six days; when I first saw him during this period his temperature had rarely been below 104° F. His blood was then found to contain in profusion the pigmented plasmodia of the malignant quotidian, 'summer-autumn' fever of the Italian observers, as well as a small number of those of tertian fever. The latter disappeared after the first day. The pigmented plasmodia disappeared speedily under the vigorous use of quinine by the mouth, hypodermically, and intravenous. As, however, these parasites were killed off, I observed from day to day increasing numbers of intra-corpuscular bodies of a kind entirely unknown to me, and not mentioned in any works on malarial fevers with which I am acquainted. At the same time the blood, instead of becoming more and more watery, and therefore more readily diffusible between cover glasses, as is generally the case, got so sticky and mucilage-like in consistence that ultimately a drop just remained as such. I had therefore to change my technique in examining fresh blood, and to adopt the method of adding to the blood a drop of 0.75-per-cent. salt solution tinged with methyl violet, a liquid which in no wise affects the form of the elements. On the first occasion of so doing I had the good fortune to discover the adult forms of the parasites whose immature forms had been puzzling me for some time. Seeing that quinine was entirely without effect on these parasites, as had been clearly enough shown clinically already and as proved by experiment with the parasites under the microscope, I cast about

for some drug which might prove lethal to them. Further good fortune led me to select methylene blue, and shortly after I began its use. I never saw again one of the above-referred-to extra corporeal parasites alive in this patient's blood, though it always had dead ones in large numbers. Unhappily, it was too late for the methylene blue successfully to exert its beneficial influence; the patient was already beginning to fail, and, though a temporary effect was produced, it proved evanescent, death occurring three days after the discovery of the *materies morbi.*"

This case is interesting because it shows that the curative power of quinine in genuine malarial fever is due to its lethal action on the plasmodia, a fact which was proved both clinically and by actual ocular demonstration through the microscope. The case also shows the powerlessness of quinine to deal with the parasites associated with the complicating remittent fever.—*Medical Record.*

HYDROZONE IN GASTRIC CATARRH.—In the *Medical Sentinel*, Dr. A. H. Deekens commends the use of hydrozone in catarrhal gastritis, and says it is an ideal medicament for destroying micro-organisms and cleansing the mucous membrane. He uses a 5 per cent. solution, using a stomach tube and introducing two quarts of this solution once a day. If the patient objects to the tube, he should swallow about eight ounces of a 3 per cent. solution half an hour before eating, lie down and remain upon the back a few minutes, and then upon each side for the same length of time. It dissolves the mucus, kills the bacteria and puts the stomach in a better condition to digest food.—*Chicago Med. Obs.*

METHYLENE blue seems to be giving satisfaction in the treatment of diabetes mellitus. It may be given in pill form, four pills of two grains each being given each day. The quantity of urine and the amount of sugar are rapidly decreased. It also relieves any neuralgic pains from which the patient may suffer.

AN EARLY SYMPTOM OF MEASLES.—Slawyk, of Heubner's clinic (*Deut. med. Woch.*, April 28, 1898,) draws attention to the eruption present in the mouth during the early days of measles, first described by Koplik. It consists of shining red spots, in the middle of which there are very minute bluish-white efflorescences. Slawyk says that Koplik's spots have not received the attention which they deserve, and that they represent an absolutely trustworthy and early indication of the disease. During last winter an epidemic of measles broke out in some of the clinics of Berlin Charite. These cases, along with those of Heubner's clinic, numbered fifty-two cases, and in forty five of these Koplik's spots were observed. In two of the remaining cases the patients were too ill to permit of a satisfactory examination of the mouth. The spots appeared on the mucous membrane of the cheek and sometimes of the lips. They are mostly few in number. A bright light is necessary, as they are not visible in a yellow light. They practically never run together. They are distinguished from thrush by their color and their rounded contour. They may be picked off with the forceps without pain or bleeding, and they are then seen under the microscope to consist of large masses of epithelium undergoing fatty changes. They have not been observed in other acute illnesses. In every case where they were seen the measles rash followed, so that whenever they were present the child was at once transferred to the measles ward. Koplik's spots appear on the first or second day of the disease, and increase in numbers up to the time of the skin eruption; they usually further remain for three or four days, so that they last from three to six days. They produce no discomfort. In some cases of measles followed by a stomatitis they were absent. No prognostic significance can be attached to them, as they were present both in mild and severe cases. Details of eight illustrative cases are given.—*British Med. Journal.*

ACETYLENE is the newest cure for cancer. Carbide of calcium is applied to the cancerous surface and then moistened with water. Acetylene is at once evolved, producing at first a burning sensation and then exercising its curative effect.—*Medical Record.*

VOMITING OF PREGNANCY.—In an article on this subject in the *American Journal of the Medical Sciences*, Dr. C. S. Bacon briefly sums up his suggestions regarding treatment as follows:

1 The abnormal irritability of the nervous system, including the vomiting-center, is to be allayed by keeping the patient in the horizontal position, by attention to the skin and bowels and kidney, using rectal, and, if necessary, hypodermatic injections of salt solution.

2. The hysterical condition which is so commonly found present should be controlled by strengthening the will and influencing the dominant ideas of the patient.

3. All sources of peripheral irritation should be discovered and treated.

4. In extreme cases subcutaneous saline injections serve the threefold purpose of (a) dilating the blood and increasing vascular tension, (b) eliminating toxins through renal and intestinal emunctories, (c) furnishing two most important kinds of food.

5. Induction of abortion is never indicated. At a stage when it is safe and efficient it is not necessary, and in extreme cases it adds greatly to the danger, rarely stops the vomiting, and can be substituted by the artificial serum.—*Maryland Med. Journal.*

ORD has found strophanthus, in five drop doses, almost a specific in the chronic forms of uticaria. It is particularly indicated in the anemia of young women, especially if there is accompanying cardiac weakness with palpitation.

THE PALMO-PLANTAR SIGN IN TYPHOID FEVER.—Quentin (*Archives générale de Médecine*, May, 1898; *British Medical Journal*, June 11, 1898.) draws attention to a sign which he considers to be of considerable use in the diagnosis of typhoid fever, and one which has hitherto not received much notice. It consists in a peculiar yellow coloration of the palms of the hands and the soles of the feet. During convalescence these same regions show marked desquamation. The writer points out that in a large series of cases of febrile affections collected by him, he has remarked the presence of a slight yellow tinge in some cases of acute articular rheumatism and tuberculosis, but

that in typhoid this coloration is much more intense. The explanation is obscure, but that offered is that the epidermic tissues undergo a special nutritive change in the presence of typhoid fever, probably due to elimination of toxic products through the skin.—*Univ. Med. Mag.*

HOT OIL AS A STERILIZER.—According to *The Hospital*, hot oil is more efficient than boiled water in sterilizing instruments. Olive oil at a temperature of 320° F. to 356° F. acts very quickly and with great power. To obtain complete sterilization of the instruments it suffices to dip them for an instant into the hot oil, and in the case of syringes it is sufficient to fill them twice with oil at the temperature mentioned. The temperature of the oil of course may be determined by the thermometer, but Professor Wright, of the Netley Hospital in England, suggests the simple although somewhat rough-and-ready method of dropping a crumb into the oil, which becomes brown and crisp as soon as the required temperature is obtained.

PAPER TEETH.—Dentists in Germany are using false teeth made of paper instead of porcelain or mineral composition. These paper teeth are said to be very satisfactory, as they do not break or chip, are not sensitive to heat or cold, and are not susceptible to the moisture of the mouth, and from their peculiar composition are very cheap.—*Med. Record.*

THE MARINE HOSPITAL SERVICE AND NATIONAL QUARANTINE.—The advantage of having the quarantine of the country under national control, so that the rules may be uniform and prompt, and vigorous measures enforced at all points, is being constantly illustrated during the present war. The fact that the Marine Hospital service is a department of the general government has enabled Surgeon-General Wyman to co-operate readily with the army and navy departments in his efforts to prevent the invasion of yellow fever from Cuba.—*The Medical News.*

BATHS IN TYPHOID.—The good effects of the baths are: 1, the reduction of the fever; 2, the intellect becomes clearer, the stupor lessens, and the muscular twitchings disappear; 3, a general tonic action, particularly on the heart; 4, insomnia is lessened, the patient usually falling asleep for two or three hours after each bath; and 5, most important of all, the mortality is, under this plan of treatment, reduced to a minimum. —*Osler in Med. Record.*

THE REMOVAL OF WAX FROM THE EAR.—The *Indian Lancet* for June 16th, quoting the *Union médicale du Canada* for January, states that Alberto Ricci, of Turin, has ascertained that the solution of hydrogen dioxide possesses the peculiar quality of rapidly disintegrating the obstructive masses of cerumen in the ear. It suffices to pour into the meatus auditorius externus a small quantity of the solution, and leave it for a few minutes in contact with the ceruminous plug. The latter is then most easily and safely removed by syringing with water, even though it were a hard concretion.—*N. Y. Med. Jour.*

NURSERY RHYMES FOR DOCTORS.—The *Dietetic and Hygienic Gazette* for August gives the following rhyme, which may be of service to some of our *confreres*:

From Centigrade to Fahrenheit
'Tis easy to divine—
You first must use arithmetic
And multiply by nine.
The answer now divide by five,
And then you have in view
The very number that you seek
By adding thirty-two.

From Fahrenheit to Centigrade,
However, it is plain—
You first must take the thirty-two
And multiply again;
But this time only by the five,
And then you draw a line
Straight up and down, in order that
You may divide by nine.

TABLE.—*Doctor* (to colored man whose wife is ill): "Say that your wife should have chicken broth three times a day and that she should be given this medicine every night."

"It jes can't be did, doctor. If she got ter have dat medicine den somebody else got ter give her dat medicine 'cause I can't tend ter both matters at the same time."
—*New York Polyclinic*.

Editorial.

IS OF BOODLE OR SIMPLY AN IMPOSITION ON THE PATENT OFFICE?

cial and other comment in nearly all of our leading *medical journals* during the past month—in fact so many that it almost seems a *protestation* on our part, notice has been called to the issuance of a patent to Emil Behring to manufacture Diphtheria Antitoxin, the *Merck & Co.* *works* making pretensions to a monopoly of this important agent in America through this patent, and going so far as to restrain all other manufacturers. From a personal communication from Messrs. Parke, Davis & Co., who have accomplished so much before the medical profession in this country in the preparation of a reliable and efficient preparation of this antitoxin, we make the following extract:

... retained the services of the foremost patent lawyers in the country, Messrs. Betts, Betts, Sheffield & Betts, of New York, and fought the pretended monopoly to the last trench. What we desire is not the enforcement of the patent but rather the action to which the manufacturers and selling agents of the serum may resort in their effort to alarm the physicians and to place implicit reliance on our Anti-Diphtheritic Serum. We particularly request that in any article which you may publish concerning the use of our serum you will insert a paragraph assuring your readers that Parke, Davis & Co., will protect and defend them in legal proceedings that may be brought as a result of their good use of our serum, assuming the entire expense of such

... granted to new inventions, new developments, and new grounds of priority of discovery. Behring met with five dis-

tinct rejections of his application in this country before he was granted a patent as late as June 21st last, before the Board of Appeals in Washington, in clear contravention of both law and justice as will be subsequently shown—and the question is very pertinent as to whether the rights claimed by him now were a result of "boodle" or an imposition on the Board of Appeals.

Suffice it to say that this free country of ours is the only one in the wide, wide world, where he has so far been permitted to avail himself of the researches, the studies, investigations and developments of Pasteur, Roux, Sewall, Fraenkel, Foa, Bonome, Kitasato, Werrick, Aronson, Hericourt, Richet, Emerich, Agata, Jasuhara, Tizzoni, Cattani, Ehrlich and others. Yes, without a single exception, European or Asiatic country, from the British isles to Japan the people have full right to the investigations and advances of the recent facts along this line, and only in free America are we compelled to submit to the exactions, even temporarily, of this monstrous monopoly.

The following editorial in *The Medical Age*, we take pleasure in reproducing in full :—

"The announcement that Professor Behring has been granted a patent as the inventor of diphtheria antitoxin will be received by the medical profession with feelings of keen disappointment. The profession of this country has always sternly discountenanced any attempt on the part of its members to make scientific achievements opportunities of personal profit. Such discoveries as the medical profession have made have been fully and freely donated to the service of suffering humanity. Professor Behring's claim to be the exclusive inventor of antitoxin not only indicates a spirit of commercialism which does its possessor no credit, but it displays a disposition to assume credit for the labors of others and to make of these an occasion of personal gain which can only indicate a high degree of moral perversity.

Professor Behring claims as his invention: 1. A process "of producing diphtheria antitoxin, which consists in inoculating horses or other animals capable of being infected with diphtheria with repeated doses of diphtheria poison or living diphtheria bacilli of gradually increasing quantity and strength so as to immunize them and form in the blood a counter-poison for destroying the poison secreted by said bacilli, drawing off the blood from said animals, separating the serum from the blood corpuscles, and concentrating the former for use substantially as set forth.

"2. As a new substance, diphtheria antitoxin, consisting of the concentrated serum of the blood of animals treated with diphtheria poison and having the characteristic of immunizing test animals against infection with diphtheria, and curing them when artificially infected with diphtheria, said serum containing a counter-poison having the property of destroying the poison secreted by the diphtheria bacilli substantially as set forth."

It is almost superfluous to point out to any well-informed reader that Behring's claim to have done this is as preposterous as it is unjust. The

principles upon which immunization to diphtheria was finally achieved were of gradual growth, the outcome of researches by thousands of untiring workers. The foundation of the work was undoubtedly laid by Pasteur in his method of immunizing against chicken cholera and anthrax. So long ago as 1887 Sewall immunized pigeons against the poison of rattlesnakes. He says, with genuine modesty, his work was undertaken with the hope that it might form a worthy contribution to the theory of prophylaxis, and it was a most worthy contribution. In 1887 Roux and Chamberland immunized animals against malignant edema with sterilized anthrax cultures. In 1890, the same year in which Behring and Kitasato published their results in immunizing animals against diphtheria and tetanus, Fraenkel published his results in diphtheria after treating animals by weakened germs and filtered cultures. In the clinical uses of the serum Aronson's name must not be forgotten. His serum was first used in the Children's Hospital at Berlin in 1894. The serum of Roux had been used in one of the hospitals of Paris a month earlier than Aronson's in Germany. Emerich and Aronson both dispute the priority of Behring, and the French Academy of Sciences awarded their prize for antitoxin jointly to Behring and Roux, a fact which very clearly denotes the difficulty of estimating priority of merit in a scientific struggle in which the numerous competitors were so equally distinguished.

The principle which lies at the foundation of the invention of diphtheria antitoxin, and that which underlies all serum therapeutics, is that the blood of immune animals can be used in the treatment of others. Behring did not discover this principle, and in its application he was undoubtedly anticipated by the Japanese workers. If to any single man must be ascribed the distinction of being the inventor and discoverer of the beneficent principle of immunization, the honor belongs to the immortal Pasteur.

The manufacture of antitoxin has been carried out for many years in England, France, Switzerland, Italy, Russia, and Japan, and in these countries no one has had the temerity to attempt to control exclusively its manufacture. In this country it is made by five Boards of Health and by several manufacturing firms. In this country alone has an attempt been made to monopolize its production, it being admitted that elsewhere the claims of any patentee are inadmissible.

If Professor Behring admits any merit in the work of his predecessors and contemporaries, his claim to be the exclusive inventor of diphtheria antitoxin is in contravention of all the ethics of a scientist's career. His claim is an offence against common morality. Had Simpson patented chloroform anesthesia, or had Lister patented antiseptic surgery, the world would have had two selfish empirics, and lost two medical heroes. If Behring, by the righteous judgment of mankind, can be adjudged sole and undisputed inventor of antitoxin, he has a place in the Temple of Fame for achieving the most beneficent discovery of modern times. It remains to be seen whether the temptation to be rich will overcome his ambition to be great, and whether for a tinsel crown he will barter a diadem of everlasting renown.

And this paragraph from the *Bulletin of Pharmacy*:—

"To their eternal praise be it further remembered that the choicer spirits of the medical profession have in all ages maintained and perpetuated a high and fine conception of the duty which the physician owes to his own dignity, to his calling, and to his pupils and to the community. They have realized keenly that disinterested, *unpaid, unbought* service on behalf of others is the only source of true distinction; that the real leaders of mankind are its unrequited servants; and that he who demands wages, profit, adequate pay for his work, must be content to sacrifice fame, reputation, influence. So, too, the man who has been paid for his brain or his blood remains forever the cheap mercenary. *He has been paid; he has received his price; and he must not murmur when he is dismissed into the limbo of the hireling, unbanked, unhonored, unremembered!"*

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Arrangements for the 24th annual meeting of this large Association of members of the regular medical profession, in Nashville, October 11th-14th next, are rapidly assuming a most satisfactory condition. The general Committee of Arrangements meets, under the chairmanship of Prof. Duncan Eve, M.D., and the various sub committees are actively engaged in perfecting the details for the assemblage of this Association, second only in numbers to the American Medical Association; and the comfort, entertainment and enjoyment of all who may be so fortunate as to participate therein. In our next issue we will be able to give more full and explicit details, and in the meantime, suggest to our readers to get matters in shape so as to attend if possible.

From the very efficient Secretary of the Association, Dr. Henry E. Tuley, 111 W. Kentucky Street, Louisville, Ky., we have the following partial list of the papers promised, which is quite a large and attractive number indeed, so far in advance of the meeting. We can confidently promise quite a large addition to even this list before the meeting.

B. Sherwood-Dunn, Boston, Mass.—Why I have Abandoned the General Practice of Vaginal Hysterectomy.

J. A. Stucky, Lexington, Ky.—Tonsillitis or Quinsy; Causes and Treatment.

H. W. Whitaker, Columbus, O.—Pichi.

A. Ravagli, Cincinnati, O.—A Few Practical Points in the Treatment of Posterior Urethritis.

Frank Parsons Norbury, Jacksonville, Ill.—The Neuro-Hypothesis of Rheumatoid Arthritis.

A. M. Osness, Dayton, O.—Diphtheria and its Logical Treatment.

F. E. Kelly, La Moille, Ill.—Varicocele.

F. F. Bryan, Georgetown, Ky.—A Plea for Pelvic Peritonitis and Cellulitis.

- John M. Batten, Pittsburg, Pa.—Syphilis.
- Geo. W. Johnson, Dunning, Ill.—Gonangiectomy and Orchidectomy in Hypertrophied Prostate in Old Men.
- Geo. F. Keiper, Lafayette, Ind.—Wounds of the Lachrmal Apparatus. Report of Operation for Restoration of Canaliculi Obliterated by Traumatism.
- Shelby Carson, Greensboro, Ala.—Consideration of the Limit to Operative Gynecology.
- W. H. Humiston, Cleveland, O.—The Relations of the Gynecologist. (This is to be the special subject for discussion by several essays and special leaders in discussion.)
- W. Gaston McFadden, Shelbyville, Ind.—Intermingling and Changing of Type in Disease.
- William F. Barclay, Pittsburg, Pa.—Mercury and its Action.
- J. Rilus Eastman, Indianapolis, Ind.—The Diagnosis of Gonorrhœa in Women.
- S. E. Milliken, Dallas, Texas.—Sub-periosteal Removal of Caries from Pelvic Basis with Report of Cases.
- Thos. Chas. Martin, Cleveland, O.—Complete Inspection of the Rectum by Means of Newer Mechanical Contrivances.
- Geo. D. Kahlo, Indianapolis, Ind.—Hydrotherapy in Stomach Diseases.
- Alex. C. Wiener, Chicago, Ill.—Surgical Treatment of Infantile Paralysis.
- James M. Parrott, Kingston, N. C.—Report of Cases of Obstetrics with Complications.
- John L. Jelks, Memphis, Tenn.—The Relationship between the Genito-Urinary Tract and Rectum, with Special Reference to the Female; which should Receive Priority when Operations are Required.
- T. Virgil Hubbard, Atlanta, Ga.—How should we Treat Typhoid Fever?
- W. W. Taylor, Memphis, Tenn.—A Clinical Contribution to Ectopic Gestation..
- M. Goltman, Memphis, Tenn.—Interesting Surgical Cases.
- I. N. Love, St. Louis, Mo.—Bicycle from a Medical Standpoint.
- Jos. Price, Philadelphia, Pa.—Surgical Treatment of Pus in the Pelvis.
- Andrew Timberman, Columbus, O.—Operations on the Mastoid; When and How Performed.
- R. A. Bate, Louisville, Ky.—Arthritic Diathesis.
- Chas. W. Aitken, Flemmingsburg, Ky.—Diagnostic and Therapeutic Uses of Tuberculin.
- G. W. Halley, Kansas City, Mo.—Some Pathological Conditions of the Ovaries and Adnexa Causing Pain.
- Other papers promised by the following:
- Drs. H. H. Grant, Louisville, Ky.; W. B. Burns, Deckerville, Ark.;

F. F. Lawrence, Columbus, O.; Louis Frank, Louisville, Ky.; E. S. Pettyjohn, Alma, Mich.

This list is a very good one for so early, as it has been the experience of the Association that papers are sent in mostly at the last moment.

The Executive Committee of the Association held a meeting in Louisville, at the Louisville Hotel, August 15th, with the following members in attendance: Jno. Young Brown of Louisville, I. N. Love of St. Louis, W. N. Wishard of Indianapolis, H. E. Tuley, J. M. Mathews, T. H. Stucky, Dudley S. Reynolds of Louisville. It was decided that as the Amendments to the Constitution adopted at the last meeting were adopted without warrant, according to the old Constitution, they may be finally read and adopted at the Nashville meeting. Invitations from Asheville, N. C., and Dallas, Tex., were received for the 1899 meeting of the Association, and they will be referred to the Nominating Committee.

Space in the Exhibit Hall has been assigned to the following representative and progressive, establishments: 1, Inland Chemical Co., of Indianapolis, Ind. 2, Emil Wilbrandt Co., St. Louis, Mo. 10 and 11, Maltine Co., Brooklyn, N. Y. 12, Trommer Extract of Malt Co., Fremont, O. 14, W. D. Allison Co., Indianapolis, Ind. 16, Fairchilds Bros. & Foster, New York. 17, Imperial Granum Co., New Haven, Conn. 18, Mellier Drug Co., St. Louis, Mo. 19, Armour & Co., Chicago, Ill. 20, Horlick's Food Co., Racine, Wis. 22, C. Bischoff, New York. 24, Wm. R. Warner & Co., Philadelphia, Pa. 25 and 27, Parke, Davis & Co., Detroit, Mich. 26, White Rock Mineral Springs Co., Waukesha, Wis., and a special position for Fassett's Med. Press Bureau. Over two-thirds of the spaces in the Exhibit Hall have either been assigned or are under consideration, with a few other choice positions that will be occupied when the meeting opens, so that this feature alone will be in full accord with the former attractiveness of the meetings of the Association.

Please remember—Railroad rates at one and one-third fair on the certificate plan. Hotel accommodations will be ample and reasonable. The meetings will be held in the Representative Hall of the State Capitol, and the exhibits will occupy the Senate Chamber on the same floor.

PEACE.

Sharp, short and decisive has been the course of the Yankee-Don War. Scarcely four months have rolled by since "War's dread alarm" was sounded before he "has smoothed his wrinkled front," and "now are our brows bound with victorious wreaths." While our navy reaped rich laurels in the contest, for in its outcome and throughout its course it occupied the more fortuous position, yet to our soldiers, whenever the occasion offered, they showed themselves equally imbued with valor, vim, dash and true patriotism; and whether it was the "Regulars," who were largely in the supremacy at Santiago, or the "Volunteers" in like position at

Manila, they all, both line and staff, as well as the private in the ranks, have added prestige to American fame; and it matters not that relentless death threatened or struck home by means of the deadly Maunser or shrieking shrapnel or the more insidious and stealthy tread of tropical disease, without a murmur, steadily and sturdily was their heroic conduct from beginning to end, and it now remains but for diplomacy and statecraft to complete the work so far carried to so successful an issue.

It is to be regretted that in regard to the operations at Santiago that in both the secular and medical press unsavory criticisms have been made —how justly yet remains to be determined. It must be remembered, however, in all history our people for the first time were engaged in a war of invasion in which the army had to be conveyed by sea and landed on a hostile shore. Furthermore, but few who had previous experience in active field service participated therein—the lifetime of a generation having elapsed since the great civil war—it was only here and there to be found a survivor of that terrific strife, while the large mass of our troops both volunteers and regulars, with the few exceptions who had seen service in our Indian disturbances, were new, crude, untried and inexperienced in actual war.

Some have seen fit to cast the blame of needless suffering, and unnecessary death on the Army Medical Department; but that slur was soon refuted; others claimed that the fault lay with the Quartermaster's Department, and even the General commanding and the Secretary of War have incurred displeasure, how just or unjust yet remains to be seen. When we take into consideration that everything had to be landed from ships in an enemy's front, under a tropical sun at midsummer, with a troublesome surf, it is remarkable that success was so sharp and decisive. Had the siege of Santiago been but protracted another week it might have been less successful and attended with far greater loss of life. Possibly there was a failure in getting a full supply of hospital and medical stores to the front in time of greatest need. This, while it might on another occasion be avoided, learning by this lesson now of the past, must be placed to the credit of one of the disagreeable contingencies of war, which, in the language of General Sherman, is neither a garden party nor a picnic. So much complaint having been made, a thorough investigation by the proper authorities surely is inevitable, yet until that is had we sincerely hope that our contemporaries will be a little patient—and facts may be placed upon record—in this time of *Peace* there is surely no occasion for useless, unfruitful and ignorant criticism. Let us wait until all the evidence is in, and trust confidently in the correct judgment of an impartial and unbiased verdict. In that verdict we feel confident will be found an honorable tribute to the valor of our soldiers and sailors as well as the unselfishness, the energy, and the faithful discharge of duty on the part of the medical men both of the regular and volunteer commands.

In the rapid organization of an active army of 200,000 soldiers, in a people who had in their entire history enjoyed a most remarkable immunity from the terrors of war, when there were so few of known experi-

ence left to select from, it is possible that political push and pull has placed in positions of responsibility those who are incompetent—but let us be patient and wait until all the facts are brought to light before we cavil at, or unjustly criticise anyone, whether high in rank or of subordinate degree, remembering that "Peace has her victories, as well as war."

RAILWAY ACCIDENTS.

From the report of the Interstate Commerce Commission we get the following abstract:

The total number of casualties to persons on account of railway accidents for the year ending June 30, 1897, was 43,168. Of these casualties 6,437 resulted in death, and 36,731 in injuries of varying character. Of railway employees, 1,693 were killed and 27,667 were injured during the year. According to the three general classes these casualties were divided as follows: Train men, 976 killed, 13,795 injured; Switchmen, flagmen, and watchmen, 201 killed, 2,423 injured. Other employees, 516 killed, 11,449 injured. The casualties to employees resulting from coupling and uncoupling cars were, killed, 214; injured, 6,283. The corresponding figures for the year ending June 30, 1896, were 229 killed and 8,457 injured. The casualties from coupling and uncoupling cars were assigned as follows: Train men, killed, 147; injured, 4,698, switchmen, flagmen, and watchmen, killed, 58; injured, 1,325; other employees, killed, 9; injured, 260. The casualties resulting from falling from trains and engines were as follows: Train men, killed, 325; injured, 2726; switchmen, flagmen, and watchmen, killed, 32; injured, 357; other employees, killed, 51; injured, 544.

The casualties to the three general classes of employees mentioned caused by collisions and derailments were as follows: Trainmen, killed, 250; injured, 1,327; switchmen, flagmen, and watchmen, killed, 11, injured 74; other employees, killed, 42, injured, 251. The total number of passengers killed during the year under review was 222, injured 2,795. Ninety-three passengers were killed and 1,011 injured in consequence of collisions and derailments. Other than employees and passengers the total number of persons killed was 4,522; injured, 6,269. Included in these figures are casualties to persons classed as trespassers, of whom 3,919 were killed and 4,732 were injured. From summaries showing the ratio of casualties, it appears that 1 out of every 486 employees was killed and 1 out of every 30 employees was injured during the year. With respect to trainmen, including enginemen, firemen, conductors, and other trainmen, it appears that 1 was killed for every 165 employed, and 1 injured for every 12 employed. One passenger was killed for every 2,204,708 carried, and 1 injured for every 175,115 carried. Basing ratios upon the number of miles traveled, it appears that 55,211,440 passenger-miles were accomplished for each passenger killed, and 4,385,309 passenger-miles for each passenger injured.

PONCA COMPOUND:—Without considering the reasons for the great prevalence of vaginal, uterine and ovarian troubles, summed up in the phrase "Female Diseases," the fact cannot be denied that most American women are so afflicted, and every general practitioner, to say nothing of physicians who devote themselves to the treatment of these complaints, will bear witness to the truth of this statement.

In general practice scarcely a day passes in which the physician is not consulted by nervous, hysterical or anaemic females, seeking relief for conditions superinduced by pelvic disorders. As a usual thing the direct cause is remote and hence cannot readily be determined by the physician who is, however, desirous of aiding the patient as promptly as possible.

How to do this without surgical interference, and in the case of young girls without submitting them to digital examination, is the problem presented.

We make no exaggerated claims when we state that the concurrent testimony of hundreds of physicians, many of wide experience in this class of ailments, goes to demonstrate that in Ponca Compound (presented only in tablet form), the practitioner has a definite remedy of the most potent and beneficial character, which will produce satisfactory results in all cases amenable to internal treatment.

INTESTINAL ANTISEPSIS IN FEVERS:—Though the typhoid, malarial and yellow fever epidemics in Cuba have not yet reached this country, it is well to guard against them by taking precautionary measures. If it be true, that the *materies morbii* of these diseases belong to the bacillus group, the remedies manifestly are an antiseptic and an antipyretic. As an intestinal antiseptic we have nothing better than salol. The consensus of opinion is in this direction. When we add the antipyretic and anodyne effects of antikamnia, we have a happy blending of two valuable remedies, and these cannot be given in a better or more convenient form than is offered in "Antikamnia and Salol Tablets," each tablet containing $2\frac{1}{2}$ grains antikamnia and $2\frac{1}{2}$ grains salol. The average adult dose is two tablets. Always crush tablets before administering, as it assures more rapid assimilation. It is not our desire to go into the study of bacteriology here; our aim is simply to call attention to the necessity of intestinal antisepsis in the treatment of this class of diseases. If, in the treatment of these diseases, an intestinal antiseptic is indicated, would not the scientific treatment of the conditions preceding them, be the administration of the same remedies? Fortifying the system against attacks is the best preventive of them.

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, N. Y.

FOOD AND TEETH.—George W. Williams, D.D.S., of Richmond, Ind., one of the leading dentists of that State, and a popular writer on dental subjects, in a recent article says:—"Many of the prepared foods sold for children are destitute of the qualities necessary to form sound and painless bones and teeth, and there is a great difference in growing up with fine grained, well glazed teeth in comparison with having the brittle, chalky teeth we commonly see. Diet is of the first importance in promoting the upbuilding of the bony system, and incidentally we would state that as a food for this purpose there is nothing that will equal 'Imperial Granum.' It is a pure, unsweetened food, made from the most nutritious portions of the finest growths of wheat. No derogatory word has ever been uttered by the medical or dental profession against Imperial Granum and its bone-building qualities. Perhaps the most important period in childhood is when the first teeth are erupting. It has been calculated that one child in ten has its life destroyed in consequence of diseases which have their origin at this time. Thus it is evident that children should be watchfully cared for, and I believe that besides those who die from diseases readily traced to irritation during the eruption of the first teeth, a number are the victims of diseases superinduced by general neglect of the mouth and the consequent tooth decay and improper mastication of food."

IQUININ SUPPLANTS QUININE.—Many patients possess an idiosyncrasy, fancied or real, against the sulphate of quinine, and for such patients, and indeed for all, the doctor can absolutely rely upon Iquinin, a pleasant and potent product of the cinchona bark.

Iquinin is well borne by the stomach, and does not disturb the nerves or produce ringing in the ears or a full feeling in the head. It is excellent for the treatment of malaria, colds, la grippe, etc.

Laxiquinin.—A combination justly popular in the malarial districts is Laxiquinin, and one which is becoming more and more generally used when an infection is to be warded off. Composed as it is of Iquinin and Podophyllin, Euonymen and other vegetable laxatives, it contains in small bulk ingredients which might well require several prescriptions.

Toniquinin.—When a general tonic is required, be it in convalescence, chlorosis or in any other condition where the processes of metabolism are below par, Toniquinin seems to do more good than any other one remedy. It is composed, as is well known by many of the profession, of Iquinin, strychnin, capsicum and other stomachics.

For further information regarding members of the therapeutic trinity; viz., Iquinin, Laxiquinin, and Toniquinin, address IQUNIN CHEMICAL COMPANY, St. Louis, Mo.

BROWNE—But he has lost one arm and both legs. How did she ever come to fancy him?

Towne—He's a remnant.—*Detroit Free Press.*

FLAVELL'S ELASTIC TRUSSES, fitted with their celebrated Pneumatic Pads, can be worn day and night with comfort and ease, are far superior and give more general satisfaction to patients than any covered iron appliance. A descriptive circular can be had at Flavell's, 1005 Spring Garden Street, Philadelphia, Pa.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

OBITUARY—D. WILLIAM PEPPER.

In the death of Dr. William Pepper, which occurred last Thursday [July 28] in California, America loses one of her best known physicians. Although closely identified with Philadelphia and its medical interests, Dr. Pepper, through his writing and public spirit, was known in a much wider sphere, and the news of his somewhat untimely death will be felt wherever the English language is read.

He was born in 1843, and obtained his academic training at the University of Pennsylvania. He later graduated from the medical department of the same institution, and was connected with various hospitals in Philadelphia. It was he who was chiefly instrumental in the establishment of the University Hospital, securing the gift of a site from the city of Philadelphia, and serving as chairman of the finance and building committees.

In the University of Pennsylvania, he was lecturer on morbid anatomy in 1868-1870, and on clinical medicine in 1870-76, and professor of the latter branch from 1876 to 1884, when he was elected to the chair of the theory and practice of medicine. In January, 1881, he was unanimously elected provost of the University. This office he resigned in 1894. He founded the *Philadelphia Medical Times*, and was its editor in 1870-71, and was medical director of the Centennial International Exposition, and for his services in connection therewith received from the King of Sweden the decoration of Knight Commander of the Order of St. Olaf. He held membership in many national and local societies, and was at times President of many of them. In 1881, he was given the degree of LL.D. by Lafayette College.

Work for which Dr. Pepper will be appreciatively remembered is that in connection with the development of a more thorough medical course. This advance was secured through the extension of the course of study in the University of Pennsylvania to four years. Toward the carrying out of this plan he made a liberal personal subscription. Our larger medical schools have, as we know, in general adopted a four-years' prescribed course, so that the pioneers have lost some of the prestige of the reform which at the time seemed so radical. In 1892, under

Dr. Pepper's leadership, the University took another step forward in establishing a post graduate department for women.

His most important literary work was the editing of the "System of Medicine by American Authors." This secured an immediate success, and is recognized as one of the chief American authorities on medical questions. He published, in conjunction with Dr. Jno. F. Meigs, successive editions of their work on "Diseases of Children." Among his contributions to journals or the transactions of societies were many medical papers of value.

Apart from work associated with his profession, which always claimed his first attention, he was a public spirited man in the best sense of the term, and was to Philadelphia a good citizen as well as an eminent physician. The places of such men are hard to fill.—*Boston Med. and Surg. Jour.*, Aug. 4.

OBITUARY:—DR. AMBROSE MORRISON.

Dr. Morrison was born in Nashville in May 1847, and died from apoplexy Aug. 3d, 1898. He was educated in the public schools of his native city and during the early days of his manhood was engaged in commercial pursuits, commencing the study of medicine in 1874, receiving his degree of M.D. in 1876, from the Medical Department of the University of Nashville. He occupied the chair of Physiology for several years preceding his death in his Alma Mater, and was Professor of Anatomy and Physiology in the Dental Department of Vanderbilt University from 1883 to the date of his death, and was secretary of that Faculty. He was also editor of the *Dental Headlight*, and several years Secretary of the State Medical Society, and its Treasurer in 1893.

Among the medical profession of this city Dr. Morrison's name was held in the highest esteem. That he was an honor to the profession is the universal verdict of the physicians of the city. In the class-room he was an effective teacher, and was popular with the students in his classes.

In disposition he was quiet and retiring. He was absolutely without guile and in his own absolute integrity he expected others to be as truthful and as honest. He was one of those who thought no ill of his neighbor, though his firm belief in the integrity of the human family oftentimes made him the loser.

At a meeting of the physicians of Nashville, held in the Hall of the Academy of Medicine, Aug. 4, Dr. J. D. Plunket presiding, the following resolutions were adopted :

WHEREAS, the great summons which called him from the scenes of earth came suddenly to our friend and brother, Ambrose Morrison, M. D., on the afternoon of Wednesday, Aug. 3, 1898, it is resolved by the physicians of Nashville :

1. That in his death our profession has lost an earnest, useful and eminent member.

2. That his long term of service as teacher of medicine, as well as practitioner, and the records he made in both capacities are and should be sources of gratification and pride to his family and friends.

3. That in all the essentials of true nobility the character of the deceased was without blemish. Kind-hearted, courteous, charitable and of inflexible rectitude, he was a consistent type of pure Christian manhood.

4. That though for many years a constant sufferer he never shirked a duty nor refused, at any sacrifice of time or personal comfort, to oblige a friend. And withal, he was uniformly patient and uncomplaining. No loftier tribute can be paid him than to simply state the fact that he was appreciated the most and esteemed the highest by those who knew him best.

5. That we extend our deepest sympathy to the family and relatives in their bereavement.

6. That a copy of these resolutions be furnished to the family and to each of the local medical journals and the daily press for publication.

A. B. COOKE, M.D.

A. M. TRAWICK, M.D.

G. C. SAVAGE, M.D.

Committee.

Reviews and Book Notices.

A MANUAL OF SURGERY FOR STUDENTS AND PRACTITIONERS. By WM. ROSE, M. B. B. S., London, F. R. C. S., Professor of Clinical Surgery in King's College, London, and Senior Surgeon to King's College Hospital, Etc., and ALBERT CARLESS, M. S., London, F. R. C. S., Senior Asst. Surgeon to King's College Hospital, and Teacher of Operative Surgery in King's College, London, Etc. 8 vo. cloth, pp. 1162, illustrated. WM. WOOD & CO., New York, Publishers, 1898

From the preface of this English work on Surgery which is dedicated to Lord Lister, we made the following extract:

In preparing this manual of Surgery for the profession, we have endeavored to meet what we think is at the present time a genuine need. The many large and valuable text-books and works of reference already in existence are almost more than the ordinary student can master in the time at his disposal. It has therefore been our aim to present the facts of surgical science in a concise and succinct form, so as to satisfy the needs of the student, even of those who are preparing for the higher examination. At the same time, the requirements of the general practi-

titioner have not been overlooked, for we have taken care to discuss in detail those conditions which are most likely to be met with in ordinary practice. The main difficulty has been to compress into a small space the ever increasing amount of material available, so that we have only been able to sketch in outline much that could have been elaborately described did the size of the book permit. For the same reason, historical and bibliographical references have to a large extent been omitted, whilst diseases of special regions—such as the eye, ear, and female genital organs—are also practically excluded, except in so far as they encroach on the domains of general surgery. The progress of bacteriology and the influence of antisepsis have so transformed the characters and extended the scope of surgical work that many of the traditions and theories of the past have had to be discarded, although at the same time we have endeavored to preserve and respect that which has been shown to be good and useful in the laborious researches and accumulated experiences of bygone generations."

As a full and complete exposition of English Surgery as it exists to-day, it will form a valuable addition to any American library.

A GUIDE TO THE CLINICAL EXAMINATION OF THE BLOOD FOR DIAGNOSTIC PURPOSES. By RICHARD C. CABOT, M. D., cloth, 8 vo., pp., 462, illustrated with colored plates and engravings. Price \$3.25. Wm. Wood & Co., Publishers, 1898.

Prof. Cabot is well known as one of the first American scientists to take up the investigation of this new department of clinical medicine, and the prominence which he has attained in this line, and the rapidity with which his work ran through two editions, would alone be a sufficient guarantee of the value of his work.

The method is strictly clinical and meant for practical use. Detailed directions for carrying out all the various steps in the technique of blood examination are given with such care that any physician may learn to make reliable blood examinations for himself. The use of the results of blood examination in the differential diagnosis of diseases is specially treated. The colored illustrations are particularly fine and very true to nature.

The principal additions to this well and favorably known book include an account of Oliver's tintometer and haemoglobinometer, new matter in the chapter on the primary anaemias, and on leukaemia, and a description of Muller's "blood-dust" (the newly discovered constituent of normal and abnormal blood), 1,700 additional blood examinations, new observations on poisoning, on aneurisms, on cretinism, etc. The general plan of the book remains unchanged.

TROPICAL DISEASES. A Manual of Diseases of Warm Climates. By PATRICK MANSON, M.D., L.L.D., (Aberdeen), F.R.C.S., (Lond.); Lecturer on Tropical Diseases at St. George's Hospital and Charing Cross Hospital Medical Schools; Medical Advisor to the Colonial Office and Crown Agents for the Colonies, Etc Etc. 8vo., cloth, pp. 607, with 88 illustrations and 2 colored plates. Wm. Wood & Co., New York, Publishers, 1898.

While this is a manual of the diseases of warm climates of handy size, yet it gives adequate information, and will prove of practical service. In this section, although not in the tropics, our protracted summers with high degree of temperature so closely approximating the tropical as to develop many of the conditions that belong specially to that region it, should be fully appreciated.

The seven sections include the following general subjects :
I. Fevers; II. General Diseases of Undetermined Nature; III. Abdominal Diseases; IV. Infective Granulomatous Diseases; V. Animal Parasites and Associated Diseases; VI. Skin Diseases; and VII. Local Diseases of Uncertain Nature.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA FOR STUDENTS OF MEDICINE AND PHYSICIANS. By JOSEPH MACFARLAND, M.D., Professor of Pathology in the Medico-Chirurgical College of Philadelphia; Pathologist to the Med-Chirug. Hospital and to the Rush Hospital for Consumption and Allied Diseases, Etc., Etc. 8vo., cloth, pp., 497, with 134 illustrations. Second Edition, Revised and Enlarged. Price \$2.50. W. B. SAUNDERS, 925 Walnut St., Philadelphia, Publisher, 1898.

In this second edition of Prof. McFarland's excellent book on this subject of such great importance, the work is brought fully up to date so far as all recent accomplishments in bacteriology. There is quite an addition of matter in this edition suf-

ficing it to fulfill the double purpose of a complete systematic work on bacteriology and an efficient laboratory guide. New chapters have been added dealing with the bacteriology of Whooping Cough, Mumps, Yellow Fever, Hog-Cholera and Swine-plague; full descriptions of the *Bacillus Ærogenus Capsulatus* and the *Proteus Vulgaris*; and descriptions of the methods of determining the value of Antiseptics and Germicides, and of determining the Thermal death-point.

The book will find its proper sphere of usefulness in the hands of students; it will, however, be found to contain much that will interest and profit practitioners, whether their education was received before modern science had thrown so much light on the etiology of disease, or in the event, they should wish to keep fully up with the rapid advances along these lines.

HAND-BOOK FOR THE HOSPITAL CORPS OF THE U. S. ARMY AND STATE MILITARY FORCES. By CHAS. SMART, M.D., Deputy-Surgeon General U. S. A., Approved by the Surgeon-General of the U. S. A. 8vo., cloth, pp., 350, illustrated. Wm. Wood & Co., Publishers, New York, N. Y., 1898.

Although the "Yankee-Dom" war is over this excellent little hand book of Deputy Surg.-Genl. Smart will be appreciated. Part I. relating to Hospitals and Hospital duties, considers in a very satisfactory manner. The Post Hospital and Hospital Corps; Active Service in the Field; The Sanitary Care of Camps; and General Hospital Service. Part II, Is a brief dissertation, practical but concise, on Anatomy and Physiology. Part IV, Comprising by far the greater portion of the work is devoted to Special Duties of the Hospital Corps. It is eminently practical, and replete with wholesome tenets and sound doctrine.

YELLOW FEVER AND DENGUE. By W. L. COLEMAN, M.D., of Houston, Texas. 8vo., cloth, pp., 141, price in cloth \$1.00, paper 50 cents, The Clinic Publishing Co., Station X, Chicago, Publishers, 1898.

This is a resume of facts collected by Dr. Coleman during forty years of active practice in the South in which time he has passed through several epidemics, and is worthy of careful study.

He claims that there is no difficulty in distinguishing yellow-fever from dengue and bilious fever. His experiences alone in the last terrible epidemic at Memphis in 1898 are quite ample to fully justify a careful investigation of his views.

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DEERING J. ROBERTS, M.D., - - - *Editor and Proprietor.*

Vol. XX. NASHVILLE, OCTOBER, 1898. No. 10.

Original Communications.

A STUDY OF THE COMMONER SYMPTOMS OF SPINAL CORD DISEASE.*

BY WM. H. WITT, M.D.,

Demonstrator of Anatomy and Lecturer on Regional Anatomy, Medical Department of Vanderbilt University.

To bring before your minds at once many of the chief symptoms of Spinal Cord Disease, especially the symptoms that I propose to review this evening, I shall suppose a severe, contused wound and note the symptoms attending such a lesion of the cord in the different parts of its longitudinal axis. I shall not assume that the traumatism effects a complete severance of all the elements of the cord in its transverse axis, but produces

*Read at meeting of Nashville Academy of Medicine, July 7th, 1898.

only such destruction of tissue as occurs in a transverse myelitis, hemorrhage into the substance, or, sometimes, in spinal caries. Such a transverse destructive lesion as the one assumed will evidently impair or destroy the functions of the tissues involved; and the symptoms observed are so varied as to furnish us a good basis for a more general study. There will be injury to gray matter, with impairment of all its functions, whatever they may be, and at the same time the different tracts of white matter whose part it is to convey impulses of various kinds will be injured enough to interfere with their work. There will be observed two groups of symptoms, depending on the kind of tissue involved and its functional relations. There are first the segmental symptoms or those symptoms arising from lesion to the particular segment in question—because the structures showing the symptoms are functionally related to that segment. Then, again, there is a group of symptoms growing out of arrest of the transmission of impulses from distant centres to and from structures situated lower down.

In the segmental area—as we shall call it—there will be an impairment, more or less severe of all the functions of the segment or segments involved, motor, sensory, and trophic. There is paresis or paralysis of all the muscles whose nerves have their nuclear origin in the injured part. This paralysis is from the start a flaccid one, with permanent loss of reflexes. The muscles have no tone; they rapidly atrophy and soon show the reaction of degeneration. There is anesthesia of the same area, more or less complete, and just above the anesthesia is frequently a zone of hyperesthesia. A flaccid muscle, with loss of reflex and consequent atrophy and degeneration is the type of the segmental paralysis—all three features, as we shall see, arising from injury to the anterior horns of gray matter.

As the process of destruction in the case assumed is rapid we shall not observe the “root” symptoms, or symptoms growing out of irritation of the anterior and posterior nerve roots, such as hyperesthesia, paresthesia, pain and motor spasm. The traumatism occurs so abruptly that all parts of the cord are involved at once and there is not the sequence of symptoms that we observe in diseases that at first irritate the nerve roots and later on by pressure or otherwise involve the cord itself.

In all parts below the segment or segments injured there will be a group of symptoms due to an arrest of conduction of impulses along the tracts of the cord. There results a complete paralysis of both lower extremities, paraplegia. This paralysis instead of being of the flaccid type is characterized by retention of its tone. There is no wasting, no reaction of degeneration. The reflexes are exaggerated. Later there occur contractions of paralyzed muscles—usually the flexors. Bilateral anesthesia accompanies the paralysis. If complete, bed sores are likely to develop. There is, in addition, involvement of the sphincter of the bladder and rectum. The extent of derangement of their functions depends largely upon the location of the lesion, with reference, I mean to the longitudinal axis of the cord. In the case of the bladder it ranges all the way from slight difficulty in urination to retention with dribbling. There are frequently vaso-motor and other minor disturbances, such as arrest of sweat, œdema, elevated temperature of skin, etc. So much for a general statement of the symptoms resulting, no matter what part of the cord is injured in the manner referred to.

Depending on location of the diseased area, there will appear new segmental symptoms and modifications of those already mentioned, all pointing to a perverted physiology. The picture just drawn will hold good in all parts of the cord except its lowest part. If the lesion is in the lower portion of the cervical enlargement some of the nerve roots going to the brachial plexus will be implicated and the area to which they are distributed will exhibit symptoms. There will be hyperesthesia of a considerable part of the upper extremity. Paralysis with anesthesia of some muscles of hand and forearm. These muscles waste and show the reaction of degeneration. A symptom quite frequently observed with lesion at this location is contraction of pupil and partial closure of the palpebral fissure.

If the upper part of the cervical enlargement is the area implicated, we shall have a flaccid paralysis of upper arm and shoulder while the rest of the arm will exhibit lower segment features, paralysis with exaggerated reflexes, with no wasting. The lower extremities are the same in both cases.

If the dorsal cord is affected there is the girdle pain, with

well marked zone of hyperesthesia above. The upper extremity is not involved, the lower is as above. If the lumbar enlargement is injured only in its upper part, the part corresponding to the lumbar plexus—we shall have a segmental paralysis of those muscles supplied by the ant. crural and obturator, while the other muscles of the lower extremity, having nerve supply from the lower uninjured part of lumbar enlargement, would show excessive myotatic irritability with no wasting. Here we should have loss of knee jerk with exaggerated ankle clonus. Usually, however, if any part of the lumbar enlargement is involved, it all is, and all the symptoms then present are of the segmental type. They are flaccid, atrophic paralysis of legs; tendon reflex is abolished; complete paralysis of bladder, the bladder holding only so much urine as the natural elasticity of the sphincter is able to retain; incontinence of feces; rapidly developing bed sores, and anesthesia coextensive with the paralysis.

We shall now take up separately the prominent symptoms of spinal cord disease, beginning with the motor derangements. I have hinted that irritative symptoms of the motor apparatus may be a marked feature of some conditions. They are due to irritation of the anterior nerve roots by inflammation, growth of a neoplasm, or otherwise, and naturally precede the symptoms arising from destruction of the roots or their gray matter in the anterior horns. As stated previously, in sudden and destructive injury to the cord there will be none of these irritative symptoms, the process is too rapid. But where the compression and destruction of the cord comes on gradually, affecting first the meninges, then the roots, then the cord itself, these symptoms will be very marked. They consist of spasm, more or less tonic in character, of the muscles whose nerves are involved. If the meninges are primarily affected a very marked irritative symptom is a tonic contraction of the dorsal muscles, producing opisthotonus. This irritative spasm is to be carefully distinguished from the spastic condition due to heightened reflexes that we find in some diseases, and from the contractures that occur late in some cases, and which are always secondary. They all have an entirely different pathology. Contractures are usually in the flexor muscles and possibly point to a greater natural contractile power in them. They are associated with organic changes in the tissues.

ORIGINAL COMMUNICATIONS.—WITT.

As the disease or injury progresses to an involvement of the cord proper, destroying the anterior horns of the gray matter, the spasm of irritation, if it has been present, gives way to flaccidity. This gray matter is only a way station in the motor mechanism, but a very necessary one, and its destruction is as surely followed by paralysis of its muscles as is section of a nerve or pyramidal tract. It breaks the continuity of the path for impulses passing from the cortex of the brain to the spinal cord. The features of this paralysis have been referred to: the flaccidity; loss of reflexes; wasting. It is to be borne in mind, however, that exactly these same symptoms will follow a neuritis of a peripheral nerve, or division of the nerve, but other symptoms will be present which will make a differentiation possible. As paralysis from disease of the anterior horns is frequently of the localized variety, as in anterior poliomyelitis, it may be that the opposing muscles are normal. If so, contractures are sure to occur and may lead to considerable deformity. The paralyzed muscles never fully regain their tone when once there has been disease of their nerve supply, and the reflexes never are fully restored. Reaction of degeneration sets in and is permanent.

In addition to the anterior horns we have, taking into account the motor mechanism, the pyramidal tracts of white matter. The function of these tracts is one of conduction or transmission of impulses from the cortex of brain to gray matter of cord and then to the muscles. In destructive lesions this tract is involved, the transmission of impulses is arrested, and there is paralysis of the muscles whose nerves have their nuclear origin in segments of the cord below the ones diseased. Such an interruption merely abolishes the influence of the brain and leaves the gray centres of the cord intact and capable of performing their function as they can do so without the influence of the higher centres. The normal use of muscles requires the help of the will, and if that help is cut off in the way referred to, it is clear that there can be no voluntary motion. The resulting paralysis is a flaccid paralysis, and the symptoms are very different from those obtaining in the sensory area.

The gray matter of the cord functionally related to the muscles, which controls their nutrition even if its connection with the brain is severed, is not injured and as a result

no wasting. There may be a slight loss of volume and tone from disuse, but there is no marked atrophy. This feature of atrophy is of great value in locating a lesion. If we see a paralysis attended by great wasting we know that the fault lies in the nerve itself or in the anterior horns. If wasting is not present we locate the trouble in the cortex cerebri or the white tract leading from these to the anterior horns.

Another feature observed is the excess of myotatic irritability, exaggerated reflexes. The patient has no power to move his legs, but a tap on the tendons will produce more or less marked reflex spasm. The contractions may be of all grades of intensity. If the disease should be one of slow instead of rapid development paralysis will not at first be complete, and along with the impaired power of motion will be a certain stiffness and jerkiness of the gait. Loss of power, with spasm, may be considered the type of a cord paralysis due to lesion of the white matter with no lesion of the corresponding gray matter.

We said that if all the lumbar enlargement were involved there would be a flaccid paralysis of the lower extremities; the trunk and arm muscles would be normal. There would be no spastic symptoms for the reason that all nerves whose conduction paths are cut off also have their nuclear origin in the cord destroyed, which destruction is followed by loss of reflex and rapid wasting.

The forms and the features of spinal cord paralysis which I have been discussing are such as occur in those lesions in which there is a destruction of all the motor elements of the cord in its transverse axis. If the whole cord in its longitudinal axis is involved in the same manner, as indeed it is in a diffuse myelitis, the motor and other symptoms are very similar, except, of course, there are no spastic symptoms at all.

But not all diseases of the cord affect the entire transverse axis. Some, indeed, showing a decided preference for certain groups of tissue anatomically or physiologically related. Anterior poliomyelitis, for instance, attacks the anterior horns and does not affect the conducting fibres. Tabes attacks chiefly the posterior columns and posterior roots. Spastic paraplegia, so-called, involves the lateral columns. The paralysis of each disease will have its own peculiar features depending on altered or

destroyed function of that particular part of the cord. That of poliomyelitis will be of the flaccid type like that of segmental variety already considered, followed by rapid wasting and reaction of degeneration. Another characteristic is the peculiar, irregular distribution, as the anterior horns in different parts of the cord are affected; the paralysis may be noted in arm alone, in leg alone, arm and leg, etc., and very rarely is a whole arm or leg involved, but a group of muscles whose nerves have their nuclear origin in same area. The posterior roots and columns not being involved, there will be no sensory symptoms. The peculiarities of paralysis of lateral sclerosis will be referred to when treating of reflexes.

The Bladder and Rectum.—In a person in health there is a gradual accumulation of urine in the bladder until from stretching of its tissues there occur reflex contractions of the muscular walls. Until this effort at evacuation is made there exists a tonic contraction of the muscular fibres about the neck of the bladder and prostatic urethra sufficient to obstruct the flow of urine and allowing the bladder to fill. The tone of the muscle is maintained in health automatically, its center being, according to physiologists, in the lumbar enlargement of the spinal cord. When the bladder demands to be emptied, which demand is probably largely due to trickling of a few drops of urine into the urethra as well as stretching of its walls, we are conscious—in health, I mean—of voluntary effort at micturition. This effort expresses itself by a contraction of the voluntary fibres of the muscle wall and by relaxation of the sphincter. As it is maintained that the tone of the sphincter is preserved by automatic action of the spinal cord, its relaxation is probably due to inhibition of this cord centre on part of the brain. While ordinarily micturition is a conscious and voluntary act, there is evidence that it may take place satisfactorily without volition. Clinical records in cases of cord injuries and experiments on animals with divided cords, in which micturition was complete afford fair proof of this statement. Then, again, such occurrences as urination under excitement and nocturnal incontinence would indicate that the process of emptying the bladder may be purely reflex. Similarly, the sphincter ani is kept contracted by a cord centre whose action may be augmented or diminished by

exercise of will. When fecal matter presses against the sphincter, it relaxes, chiefly by act of will—sometimes, at least, by reflex action—and the feces escape. In diseases and injuries of the cord not affecting the vesical and rectal centres, the disturbance of these functions, while in certain cases, it may be considerable at first, is not so severe as when the lumbar cord or the nerves going to rectum and bladder are involved. There may be all grades of interference with these functions. In the most favorable cases we note only a little difficulty in urination, accompanied, possibly, by some straining and some retention. As the pathology deepens the paralysis of the bladder advances, and with all grades of speed, depending on the individual case.

Even with the lesion high up in the cord if transverse interruption be complete there is complete paralysis of both bladder and rectum. In such case the symptoms are practically what they are when the functional centres are involved. The bladder, though its muscular wall and sphincter are completely paralyzed, will hold a considerable amount of urine owing to the natural elasticity of the sphincter. When the distention is sufficient to overcome this elasticity the urine dribbles away, but only partially empties the organ. This constitutes retention with overflow, *ischuria paradoxa*. The sensory anesthesia usually accompanying such a severe condition permits defecation and urination to be effected unconsciously and the patient is constantly soiled. This degree of retention of urine may be rapidly followed by cystitis and even pyelitis.

As to the rectum the conditions are somewhat similar. In most cases of severe disease of the spinal cord there is obstinate constipation. In such a case the feces cannot escape even though there be paralysis of the sphincter. If there should be diarrhea the patient is continually soiled. Examination of the rectal sphincter from time to time may reveal a great deal as to the progress of the case. If only the conduction fibres are injured above the lumbar enlargement, the finger passed into the rectum will note first a relaxed sphincter, followed by rather strong contraction. If at a later examination this secondary contraction does not appear we understand that the disease has progressed downward to include the lumbar enlargement.

Closely allied with paralysis is the condition of the reflexes.

I shall refer only to the deep or tendon reflexes. The machinery involved in a reflex act consists of afferent sensory fibres, a nervous centre in the cord, or brain, as the case may be, and the efferent motor fibres. The sudden extension of the leg following a tap upon the patellar tendon implies in its performance that afferent sensory fibres have carried the impulse to the reflex centre in the cord, this centre has been stimulated into action thereby, and the efferent motor fibres carry the new impulse along the anterior crural nerve and the quadriceps suddenly contracts. These three elements, the afferent fibres, nervous centre and efferent fibres constitute the reflex arc. Each element is equally essential to the performance of reflexes. A neuritis, affecting only the nerve fibres, is as sure to be followed by impairment of reflexes as is disease of the cord centre itself. In the healthy cord there is usually a definite relation between the sensory impulse and its motor effect. The afferent impulse stimulates the nuclear origin of its corresponding motor nerve, and only the muscles supplied by that nerve will contract. But the gray matter of different segments is so closely allied anatomically that even in health the impulse may excite a disproportionately large area of nuclei, resulting in a more general muscular contraction. The plantar reflex, for instance, usually involves more than one set of muscles. Particularly is this feature noticed in some abnormal conditions of the cord, as strychnia poisoning. Here a slight touch may bring on a general convulsion. A similar phenomenon is observed in some forms of spastic paralysis.

While the reflex centres of the muscles of the trunk and extremities are in the spinal cord, many facts go to prove that the brain, through the pyramidal tract, exercises a controlling influence over them. Interference with this control by injury to the tract greatly modifies the intensity of their action. Pathological conditions in the cord may affect either the pyramidal tract or the intra spinal portion of the reflex arc. In general, if the latter is injured the reflexes are weakened or lost. If the tract is injured the controlling influence of the brain is lost, the spinal centre acts without its accustomed restraint and the reflexes are exaggerated. This exaggeration follows a large

variety of lesions, all having the common feature of destroying the conduction paths. Hemorrhage into the internal capsule and degenerative lesions in pons or medulla may be marked by this symptom. The most frequent conditions of the spinal cord showing this feature are the various destructive lesions, such as injury, hemorrhage, neoplasm, myelitis, syringo-myelia and lateral sclerosis. In the last named disease the fibres of the lateral tracts terminating in the cornua of the gray matter are involved. It is assumed that in health they do much to control the reflexes, and when diseased the reflexes become exaggerated. As an exception to this customary exaggeration of reflexes it must be stated that in severe injuries of the cord above the lumbar enlargement the reflexes are temporarily lost. They soon return and become intensified. Possibly the shock transmitted more or less to all parts of the nervous system will account for this suspension. If the cord is completely divided the reflexes are permanently lost.

Excessive reflex activity is common in the various forms of paraplegia, causing the spastic symptoms so usual in that condition. A paraplegia with permanent loss of reflexes and not due to complete division of the cord is due to disease of the lumbar segment and the paralysis is of the flaccid type. In general, then, we say that the reflexes above the injured segment are normal. Those on anatomical level of the lesion are lost. Those below it are intensified. All three conditions may be present in the same case. The intra spinal parts of the reflex arc are the posterior ganglion, posterior roots, and posterior column, with anterior horn and root. Disease of any of these elements will be followed by impairment of the reflex and we find an impairment or loss in the following diseases: Locomotor ataxia, polio-myelitis, myelitis, transverse or general, hemorrhage, injury and some others. It is not to be forgotten that diminished reflexes will follow a neuritis. In addition to its intra-spinal pathology locomotor ataxia is accompanied by a deep anesthesia, which, no doubt, contributes materially to the loss of reflexes.

Rapid wasting of the paralyzed muscles and other disturbances of trophic nature have been mentioned as prominent symptoms of spinal cord disease. It has been pointed out that the anterior horns of gray matter are the trophic or nourishing cen-

tres of the nerve roots that go out from them and the muscles to which they are distributed. Any lesion of these centres will naturally be followed by impairment of nutrition in the parts to which they are functionally related. This impairment shows itself in rapid wasting and degenerative changes that come on in any disease whose pathology attacks the anterior horns. Poliomyelitis is the type of disease having this pathology. In this very common disease of childhood the muscles lose their volume and tone very rapidly and soon show the reaction of degeneration. In muscles, however, whose paralysis is due to interruption of the pyramidal tract, their related nuclei not being involved, we observe only a moderate wasting. In a transverse myelitis we shall find those muscles functionally related to the diseased segment showing great atrophy, while the lower limbs will have their normal volume. In some spastic conditions the muscles, though paralyzed, may actually enlarge owing to the excessive activity from intensified reflexes.

Next to wasting, the most important trophic change is acute decubitus or bed sore. We are not able to say where the trophic center whose involvement is followed by acute bed sore lies, but we are justified in assuming its existence. While decubitus may be largely induced by the pressure and uncleanness due to anesthesia so often existing, yet the rapidity with which it occurs in the lower half of the body in destructive lesions of the lumbar cord point to this region as the one concerned. The existence of bed sores is not of great value in diagnosis. The rapidity of their formation and their not yielding to treatment is of value in prognosis.

There are numerous other forms of trophic disturbance in diseases of the cord for the most of which it is difficult to assign a cause. They are for the greater part without special diagnostic value. The most interesting are those found occasionally in locomotor ataxia. They are disintegration of joints, especially the knee, perforating ulcers of the foot, deformities of the nails, etc.

Disturbance of Sensation.—While in diseases of the brain sensory disturbances are not at all frequent, we find them quite a marked feature of diseases of the cord. They are almost always bilateral. The different varieties of sensation usually noted are those of touch (the tactile sense), pain, temperature,

and position. There may be involvement of all these kinds of sensation, or some may be normal while others may be seriously impaired. It is possible that the different forms of sensibility have different tracts for their condition; but, if so, they are not yet located, and so far the mixed condition, the sense of touch, for instance, being normal, and the temperature sense impaired, does not aid us much in a diagnosis.

The anatomical elements of the sensory tract with which we are concerned are the posterior roots, posterior horns, and other parts of gray matter, and the conducting tracts—largely the lateral and posterior columns. Lesions of any of these will affect to a greater or less degree the various forms of sensibility. The usual disturbances of sensation are hyperesthesia, paresthesia, pain and anesthesia. Anesthesia implies that there has been destruction of some of the sensory tract. The other three are irritative symptoms, and are especially prominent in those diseases, gradually involving the posterior nerve roots and cord. They are meningitis, tumor, spinal caries, myelitis, etc. Hyperesthesia is quite frequent as the very earliest symptom. It is sometimes noticed just at the upper level of an anesthetic area. In such a case, the nerve roots corresponding to the hyperesthetic area, are only gently irritated, while those below are destroyed or shut off altogether. Pain often follows hyperesthesia and is felt over the cord or in direction of the nerve implicated. It may be constant or intermittent. It is often of valuable aid in making not only a topical diagnosis but pathological as well. If severe, it is especially significant of meningitis.

Paresthesia, or spontaneous sensations, are disturbed or perverted action of the sensory structures. They may be functional or due to a neuritis and not to cord disease. They express themselves as pins and needles, numbness, formication, etc. They are quite common in ataxia, but on the whole aid very little in study of the case in hand.

Anesthesia, or complete loss of sensation, indicates a destructive lesion, and is present in the severe forms of myelitis, hemorrhage, injury, etc. The loss of sensibility makes it possible for the patient to pass urine and feces unconsciously, allows him to lie in one posture a long time, and in these ways contributes very materially to the development of bed sores. In diagnosis

of the height to which a destructive lesion of the cord has reached the upper level of the anesthetic area furnishes valuable aid, much more so than does the upper level of the paralysis, especially if the lesion be in the dorsal region.

Anesthesia as a symptom of spinal cord disease is almost always bilateral, from the fact that nearly every condition affecting the sensory structures attacks both sides of the cord alike. Brown-Séquard's paralysis furnishes an exception. Here we have a unilateral destructive lesion of the cord exhibiting paralysis on the side of injury, with anesthesia on opposite side. This peculiar combination is due to the fact that the motor fibres destroyed are the ones going to the muscles on the same side of the body as the lesion, while the sensory fibres are the ones that have come from the opposite side of the body, have entered the cord on its sound side, but have decussated into the injured side below the point of disease.

In making a diagnosis where anesthesia is a feature we must bear in mind that it is not common in intra-cranial troubles. It is common, however, in hysteria and diseases of the nerves, and the other symptoms pointing to these conditions must be borne in mind. The same may be said of hyperesthesia and paresthesia. In fact almost every symptom of spinal cord disease may be simulated in hysteria, and this very versatile affection must never be ignored in our efforts to reach a diagnosis.

Clinical Reports.

RHINOLITH OR NASAL CALCULUS: REPORT OF A CASE AND EXHIBITION OF PATHOLOGICAL SPECIMEN.*

BY WILLIAM H. POOLE, M.D., DETROIT,
Member of the American Medical Association, Wayne County Medical Society, etc.

Mr. President and Members of the Wayne County Medical Society:—The pathological specimen I have the pleasure of exhibiting to you this evening is one of unusual interest, even

* Read before the Wayne County Medical Society, Feb. 17, 1898.

to those of us who limit our practice to diseases of the eye, ear, nose, and throat, from the infrequency with which we meet these cases, and also from the circumstances which led up to its discovery, owing to the fact that it was situated somewhat differently from most cases of this kind.

Miss L. K., aged 24 years, from whose nose this was taken, consulted me January 1, 1898, regarding her nasal catarrh, with which she stated she had been afflicted ever since her childhood. Ten years ago she had been treated for about a year by one of the leading rhinologists of this city, receiving considerable benefit, but for the last two or three years she has had a rather profuse nasal discharge, thickened, and increasingly offensive in character, with obstruction to nasal respiration, loss of smell, nasal voice, and the other usual symptoms which we find in an aggravated case of chronic rhinitis. Lately she had suffered from headache, which was increasing in severity, and was also troubled with weeping of the left eye. She had been using an atomizer for some years without getting any other relief than the keeping of the nose approximately clean.

On making anterior and posterior rhinoscopic examination I found considerable hypertrophy of the turbinates of the left side, especially of the inferior turbinal.

I suggested an operation for the removal of the hypertrophied tissue of the lower turbinal, which was impinging on the floor of the nose. This was agreed upon, and on Saturday, January 15th, I operated at 3 p. m. in the usual way, cocaineizing the parts thoroughly and making a practically painless operation.

Hemorrhage was not very profuse and was readily controlled at this time. The patient returned home, and soon after suffered from an attack of nervous sick headache, to which she was subject upon occasions of nervous strain.

As usual, the headache ended with an attack of retching, after which straining the hemorrhage started in afresh and rather profusely. I tried again to control it with styptics and plugging the naris with absorbent cotton, but did not succeed in thoroughly arresting the flow of blood, and, as the patient was getting very weak, with the kind assistance of Dr. Suttie,

imposed through the posterior naris with a sponge tent, which instantly stopped the hemorrhage. I then ordered her to be liberally supplied with beef extract, for the double purpose of nourishment and to increase the arterial tension.

Sunday, the next day, she was doing nicely, but was very weak; there was no recurrence of the hemorrhage, but I did not think it advisable to remove the tampon as she was too weak to bear it.

Monday, January 17th, the patient was a little stronger, owing to debility I could only remove a part of the tampon from the anterior naris.

The next two days I removed still more of the sponge anteriorly, in all about two-thirds of it being removed up to this time, the patient still being too weak to bear much manipulation. On Thursday morning, January 20th, I attempted to remove the remainder posteriorly, but found it so firmly fixed that it could not be dislodged except with extreme force under anesthesia. I called in Dr. Chittick and anesthetized the patient, when, with considerable difficulty, we removed the remainder of the sponge.

After the patient recovered from the anesthetic I cleansed the nasal cavity thoroughly with hydrozone, one part to twelve parts of lukewarm water, and she returned home rejoicing, the operated wound being in good condition, healing nicely.

Next morning she came to my office for treatment and stated she had enjoyed perfect freedom in breathing through that nostril until about four o'clock in the morning, when, changing her position in bed, that side became suddenly obstructed. After cleaning the nostril, which was seemingly full of an offensive discharge, I discovered this body, which was attached at the posterior end on the outer side of the inferior meatus, lying, as it were, in a groove or pocket.



(Natural size.)



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The anterior or loose end of it was sharp like a spiculum of bone, and black in color; it was freely movable about its long axis, so that you could pass a cotton holder around it and lift it from its bed. After cocanizing, I grasped it with a dressing forceps and, giving it a twist, removed it. I then thoroughly cleansed and disinfected the cavity with the hydrozone solution, which removed the odor and rendered the cavity wholesome.

The next day the two smaller pieces were removed while cleansing and treating the nose. They were loose and seemed as though they had just scaled off from the bed where the larger piece had lain.

The spraying of the nasal cavity with hydrozone, followed by the use of glycozone, constituted the treatment for the next four days, by which time the offensive odor had entirely disappeared, and the parts had assumed a healthy condition.

This concretion formed the outer side of the inferior meatus, and as it grew larger it obstructed the flow of tears through the naso-lachrymal canal, as evidenced by the overflow of tears from the left eye, which condition ceased immediately after the removal of the rhinolith.

The second hemorrhage was evidently due to a relaxation of the pressure on the vessels of the turbinate, owing to the calculus being disturbed in its position when the patient was retching.

As to the exciting cause of the formation in the case of this young lady, I could get only a negative history, there being no recollection of any foreign object having been put up the nose in her childhood. Being desirous of ascertaining, if possible, what served as a nucleus, and at the same time finding out the composition of the formation, I cut it in two.

Microscopical examination reveals that it is composed of amorphous phosphates, undoubtedly the phosphates of calcium and sodium, which came from the tears.

There has been a marked improvement in the young lady's condition since the removal of the rhinolith; overflowing of the tears in the left eye has ceased, nasal respiration has become perfect, her voice has lost the nasal twang, and her general health has improved rapidly, as indicated by the fact

that she has gained four pounds in weight since the operation (four weeks ago), and is still improving.

270 Woodford Avenue.

Selections.

TREATMENT OF NEURASTHENIA.—Before discussing the treatment of the above disease, it is necessary to ascertain its pathology and the causes underlying its morbid processes. It is also necessary to know which organs are mainly involved, and the nature of its involvement, whether functional or organic. Some writers deny the existence of such a disease as neurasthenia, but those who concede its existence define it as an exhausted state of the nervous system, limited at times to certain nerve centres. It is impossible to furnish a complete definition of this disease, by reason of its complex phenomena, but it reveals its nature in a weakened bodily condition, in which there is an impaired co-ordination of nerve centres, producing a physical instability very similar to the mental instability in melancholia or mild cases of insanity, in both of which conditions there is inadequate reaction to internal and external stimuli.

A prolonged mental and physical strain in a delicate subject, coupled with insomnia, disordered digestion, and impaired metabolism, is one of the important underlying factors of neurasthenia. A person of weak mind and irritable nerves, with a dyspeptic stomach, unfortunately situated socially and financially, becomes an easy prey to neurasthenia. An individual with a strong mind in a healthy body can overcome obstacles, conquer misfortune, and recover from the fatigue and exhaustion of adverse environments. Such a person is comparatively immune to all physical and psychical disorders. Most victims of neurasthenia are primarily anaemic and secondarily neurasthenic. Nervous force does not exist independent of healthy nutrition. We may have inherited defects which, unguarded by hygienic laws, will favor the development of neurasthenia, or we may be too feeble in mind to resist the temptation to

abuse our bodies by indulging in all kinds of excesses; but if there is any fact established beyond the semblance of a doubt, it is that which shows that neurasthenia, said to result from overwork and mental strain in the subjects of this disease, never occurs in a well-nourished and healthy individual.

Believing, then, that healthy blood will build up and make healthy nerves, which will resist or recover from the severest strains to which they may be exposed, I have for a number of years successfully pursued an upbuilding and hygienic treatment in dealing with neurasthenia. It is first absolutely necessary for the physician to possess the confidence of the patient. He must then lead him, step by step, into a new and reformed life, and never abandon him until he has acquired sufficient strength of mind and body to lead himself. If there is no structural change of tissue or serious complicating disease, and the patient submits to the dietary, hygienic, and medicinal restrictions imposed, along the lines above outlined, if he does not entirely recover his health, he will at least escape the penalties of confirmed invalidism with remote sequelæ that would eventually make him a burden to his friends or a charge upon the charity of some public institution. Unless the vital forces of the patient are almost completely exhausted, the rest cure and change of residence so commonly advised by physicians would not benefit him. It is not so much rest that is needed as a restoration of tone and power to all the organs, which will enable them to respond to every call without the least sensation of fatigue or exhaustion. Healthy conditions of the organs depend upon their physiological activity. The equilibrium in processes of waste and repair must be maintained. This metabolism cannot be fully accomplished when the body is at rest. Our daily observation teaches us that atrophy, or weakened function, follows the disuse of any organ of the body. Anæmia, from a variety of factors, is generally the forerunner of neurasthenia. This is shown by a similarity of symptoms in both conditions. The only difference noticeable is, the symptoms of anæmia are exaggerated and supplemented by others of a nervous character in neurasthenia, just the same as the uninterrupted progress of the latter disease may end in insanity or mental aberration. In the treatment of this disease I have depended mainly upon iron

and its adjuvant, manganese, to meet anæmic conditions. The best preparation embodying these valuable ingredients is "Pepto-Mangan" (Gude). It consists of a peptonate of iron and manganese, is assimilable and agreeable to the most irritable stomach, and, under my observation, has produced most excellent results, as will be seen in the subjoined clinical cases.

Case I.—Male, aged forty-five; occupation, bookkeeper; pale and anæmic; had been in poor health for over a year; was poorly nourished; pulse, 95; respiration, 25; hæmoglobin, forty-five per cent; red cells, 2,800,000 to the cubic millimetre. No organic trouble; complained of tired feeling, lack of energy, defective memory, insomnia, inability to fix his mind on his work, constipation, want of appetite, headache, and muscular tremors. He had a worn and anxious expression of countenance, was depressed, irritable, and in constant dread of some impending evil. Prescribed cascara sagrada in form of elixir with nux vomica, to relieve constipation; advised abundant outdoor exercise, daily cold-water baths with subsequent brisk rubbing of the skin, and gave him a teaspoonful of Pepto-Mangan (Gude) four times a day. This treatment, with some slight changes in hygienic details, was continued six weeks, with the result of complete recovery and a return of patient to his usual avocation.

Case II.—Male, aged twenty-two years; clerk in dry goods store; height, five feet nine inches; weight, one hundred and twenty-five pounds; pulse, 90; respiration, 22. Pale and nervous; appetite and digestion poor; overworked by assuming extra duties in the store; given to emotional excitement and sexual abuses. Was on the down-grade for six months before he was compelled to relinquish his occupation. In this time he became a mental and physical wreck, and was difficult to control. His habits of life were finally thoroughly reformed and under complete control. The weather being warm, he was advised to live in a tent for a month and spend his time in fishing and hunting. He was given a teaspoonful of Pepto-Mangan (Gude) three times a day, and advised to drink two quarts of sweet milk every day in connection with any light solid food he might relish. At the end of a month he returned very much improved in health. He was kept under strict observation for three weeks longer, continuing treatment without any change,

except slightly increasing the dose of Pepto-Mangan, when he had sufficiently recovered his health to resume his customary duties.

Case III.—Male; drummer by occupation; aged thirty-six years. This patient betrayed psychical disturbances in a marked degree. His occupation occasioned an irregular mode of life. He had no regular hours for meals or sleep. At times he was unsuccessful in making sales and collecting bills. He became despondent, and his mental depression deepened until he became hypochondriacal. He suffered from insomnia, loss of appetite, became emaciated, his memory weakened, his vision was blurred, he was annoyed with constant tinnitus aurium and paraesthesiae of the upper and lower extremities, and finally became incapable of transacting business. He had no organic disease. He was placed under favorable hygienic control, supplied with suitable nourishment, and freed from mental worry. He was advised to take a teaspoonful of Pepto-Mangan four times a day. Under this treatment, in two months he was restored to his usual health.

I am not in the habit of overrating the merits of any drug or pharmaceutical preparation, but my success with Pepto-Mangan as a blood-builder in impoverished conditions of the system compels me to testify in its favor.—*O. F. Baerens, M.D., in St. Louis Medical Era.*

GYNECOLOGICAL AXIOMS—POINTS IN GYNECOLOGICAL EXAMINATION AND DIAGNOSIS.—1. Never make a gynecological examination until a careful history of the case and a clear recounting of symptoms have been elicited. Both the history and the symptoms often furnish an important clue for diagnosis.

2. Never ask unnecessary questions, but always make it apparent that every question serves an important purpose. If you have any reason to think the patient may view any question in a different light make it apparent by other questions that show the importance of those which may seem doubtful to her. Question her in an unembarrassed, businesslike manner. Show her plainly that every question asked is essential, and that you expect the answers to be accurate.

3. Much is gained by recording the history and symptoms in

the presence of the patient. Let her understand that the information she gives is confidential, without stating it too plainly.

4. Never expose the patient unnecessarily, but show her that you respect her modesty.

5. Treat all gynecological patients with the same respectful consideration. Then those who are not ladies will be anxious to have you think them so.

6. It is unwise to make a digital or speculum examination under any circumstances until the vulva and vagina have been thoroughly irrigated with an antiseptic solution.

7. Never make an examination with a settled idea in view based upon the history or symptoms. Conclusions thus reached frequently lead to error by causing other important considerations to be overlooked. Search the pelvis everywhere for everything unusual, making a mental note of all that is abnormal, and record immediately afterwards the condition as found.

8. Make the diagnosis by exclusion when possible. It is apt to be more accurate.

9. Never be satisfied with an examination unless a satisfactory diagnosis can be made, but reserve opinion until the patient is less nervous or less sensitive, or until an examination can be made under anesthesia.

10. Never use two fingers in the vagina for making a pelvic examination. By proper manipulation you can reach further with one, the touch is more delicate and certain, and it is less disagreeable to the patient.

11. Never attempt to palpate the appendages of both sides with the same hand, but always employ the right index finger in the vagina for examining the right side, and the left for the left side. The tactile sense of the palmar surface is always more acute, and it is employed to better advantage with the hand and forearm in a natural, easy position.

12. Depend mainly upon digital manipulation for diagnosis. The speculum is of little value for this purpose.

13. For speculum examination employ the lateral posture whenever possible. It is more modest and more convenient and more instructive.

14. Never use the uterine sound for the purpose of determining the position of the uterus. The man who is obliged to

resort to this means for diagnosis should not attempt gynecology.

15. In bimanual examination feel with both hands, think with both, and do not reach a conclusion hastily, but be sure you have found all there is to be discovered.—*Augustin H. Goelet, M.D., in Times and Regisier.*

ANESTHESIA.—In an article on this subject in the *Columbus Medical Journal* for September 6th, Dr. J. Lewis Thomas concludes with the following summary:

1. Make a thorough physical examination of the patient.
2. Prepare the patient carefully; the minutest details to secure the best conditions should never be regarded as too insignificant.
3. Give the least amount of anesthetic consistent with the required degree of narcosis.
4. The cardinal points to recognize are: the respirations, pulse, pupil and color.
5. Safety in anesthesia means accurate knowledge and stringent application.
6. To resuscitate: inversion, artificial respiration, heat over cardiac region, strychnin, nitroglycerin, ammonia, amyl nitrate, and divulsion of the sphincter ani.

By close attention to these few fundamental principles you can hold in abeyance almost all complications, and intercept many sequelæ. If I can leave no other thought with you to-day, I wish you to grasp the important fact that intelligent anesthetizing means knowledge of the physiological action of the agent employed, caution and vigilance in its administration, keen perception in the discernment of complications, and quick, cool-headed judgment in averting or combating the same. There are times when nature proves refractory, and the endeavors of the most experienced are sometimes frustrated. But, if we have done our work well, our cheeks need not blush, our lips need not apologize.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis-supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, N. Y.

REST: A NEGLECTED FACTOR IN GASTRO-ENTERIC DISEASES.—In a paper on this subject at the recent meeting of the American Medical Association, C. V. Spivak (Denver) protested against the too frequent and general use of lavage, galvanization and other local mechanical measures in the treatment of gastro-intestinal diseases. His own method was to advise rest in bed in all serious cases, with entire abstinence from food for at least from one to three days, nutritive enemata being used if longer abstinence was necessary, with poultices over the epigastrium, which gave comfort and acted as a splint for the stomach. He recited histories of cases with hyperchlorhydria, gastric disturbance with pulmonary tuberculosis, membranous enteritis, and other affections in which failure of permanent relief by the usual methods of treatment was followed by entire cure or permanent amelioration of symptoms when the rest cure was employed. He considered this treatment indicated in all neurotic cases; in all cases with pain or diarrhea, and in almost all tuberculous cases, and he thought it never contra-indicated.—*Gillard's Med. Journal.*

THE TREATMENT OF PELVIC SUPPERATION.—Dr. Joseph Tabor Johnson (American J. of Obstetrics) advocates the vaginal route in operating upon cases with pus in the pelvis. He brings out the following points: 1. The vaginal section is very much more quickly done than the abdominal, and the convalescence is much shorter. 2. There is little or no shock. 3. The peritoneal cavity being seldom opened in these cases, except when hysterectomy is done also, much less traumatism occurs to intestines, bladder, ureters, omentum, or abdominal wall, to greatly prolong difficult and dangerous operations. 4. Drainage, being downhill, is not opposed by the laws of gravity, and is more natural, safe and copious. 5. There is no ugly scar to annoy the eye and develop a painful keloid or permit a ventral hernia. 6. The mortality of the vaginal operation for pus is vastly less than in that of enucleation of tubo-ovarian abscesses from above in the badly adherent and complicated cases. 7. Experience has abundantly proved in more than a sufficient number of cases that the removal of the abscessed organs is not

necessary to a symptomatic cure, and that a permanent and complete restoration to health is the rule, while a secondary operation later on is the exception. 8. Should a secondary operation from above become necessary, its performance would be much easier and safer, on account of the freedom from pus and the improved condition of the patient. 9. The perfection of the operation for draining double pus tubes through the vagina has opened the way for many other beneficent operations from below, including anterior and posterior colpotomy, explorations, hysterectomy, etc. 10. Many patients who fear and will not consent to coeliotomy with its possible accidents, including intestinal injuries, the post-operative sequelæ and the scar, the stitches, the bandages, the troublesome supporter for six to twelve months, and the possible hernia, will readily consent to vaginal incision and drainage, and vaginal hysterectomy when necessary. 11. Vaginal hysterectomy with the ovaries left *in situ* is followed by much less nervous and psychical disturbance than when the ovaries are removed and the uterus left, or than when they are all removed at the same time. 12. If any or all of these advantages are admitted in favor of the vaginal operation over the abdominal, then it must follow that it is our conscientious duty to operate by this route more frequently in the future than we have done in the past.—*Med. Standard.*

PERIODS OF INFECTION.—The period of infectiousness of contagious diseases is considered to be: Small-pox, six weeks from the commencement of the disease, if every scab has fallen off. Chicken-pox, three weeks from the commencement of the disease, if every scab has fallen off. Scarlet fever, six weeks from the commencement of the disease, if the peeling has ceased, and there is no sore nose. Diphtheria, six weeks from the commencement of the disease, if sore throat and other signs of the disease have disappeared. Measles, three weeks from the commencement of the disease, if all rash and cough have ceased. Mumps, three weeks from the commencement of the disease, if all swelling has subsided. Typhus, four weeks from the commencement of the disease, if strength is re-established. Typhoid, six weeks from the commencement of the disease, if strength is

re-established. Whooping-cough, six weeks from the commencement of the disease, if all cough has ceased.—*The Public Health Journal.*

THE ETIOLOGY OF CANCER.—Dr. Roswell Park defines lipoma as due to a disturbance of nutrition, due to faulty enervation. Fibromata are usually of traumatic origin. Myofibroma of the uterus has of late been regarded as of parasitic origin. Chondroma is practically inseparable from rickets. Osteoma may be explained on embryonal grounds. Adenoma is the nearest approach to a malignant tumor, which is consistent with a non-parasitic theory. It requires only the added impetus of a parasite to convert an innocent enlargement into an exceedingly malignant growth. In the vegetable kingdom it is hard to draw a distinction between various grades of malignancy, but the method of death in plants and animals is essentially the same, i. e., through ulceration, starvation and toxic action.

We used to be taught that cancer was exceedingly prevalent at certain ages, that the essential predisposing cause of cancer is senility, but he who fails to recognize a malignant growth because he finds it in a young person, is as sadly misled as is he who makes the same mistake because the patient did not complain of lancinating pains. With the waning of developmental activities the danger of cancer increases, but this is true of all known infections. Buffalo, N. Y., is near the center of an area some 200 miles in radius where the death rate from cancer is larger than in any other part of the United States.

Cancer-bearing trees are not only exceedingly prevalent in woods, but it would seem that this plant lesion is contagious. Insects, as Moran has experimentally shown, may not only carry the infective material from one tree to another, but deposit it in human food. Moran reported inoculation of fragments of an epithelial cancer of a white mouse into ten other white mice, with formation of cancer nodules in eight, which nodules were successfully used for further inoculation in yet other mice. He placed healthy mice in cages, by which they were kept free from insects, and they remained in perfect health. In other cages he placed white mice with bedbugs taken from the cages

of cancerous mice, and observed after a few months that all of the animals infested by these insects were suffering from cancer.

Prof. Sanfelice and Prof. Roncali have cultivated blastomycetæ, which they have found within, between and around cancer cells. Moreover, by inoculations with these cultures they have produced tumors in animals which bear the strongest possible resemblance to those neoplasms from which the cultures were originally made. These parasites must be sought for in the periphery of the tumors and in the juices of the same, but not in the central portions, for here they seem to have disappeared. Most of the experimental tumors thus produced have returned to the same blastomycetæ upon further culture tests.

Sanfelice has produced small tumors in numerous of the smaller animals by injection of his saccharomyces. It is interesting also that some of the blastomycetæ which he discovered in tumors were identical with those found upon the common lemon. He injected the saccharomyces into the mammary gland of a bitch which lived for 14 months, and then died with a definite tumor in the gland, and with metastases in various organs. Also, after injecting this culture into the abdomens of guinea pigs he saw them die in from 20 to 40 days as the result of neoplastic lesions, while when injected beneath the skin they killed the animals in from 30 to 50 days with local manifestations.

The blastomycetæ in question will grow in distilled water sufficiently acidified, to which a little sugar has been added, or in any of the ordinary media, provided only that they be sufficiently acid.—*American Journal of the Medical Sciences.*

PUERPERAL INFECTION.—(a) Contact of the physician or nurse is the most frequent cause; (b) make as few vaginal examinations as possible in obstetric practice; (c) omit the ante-and-post-partum douche as routine practice; (d) at the first appearance of puerperal sepsis give the parturient canal one thorough disinfection; (e) be sure not to overlook localized pelvic inflammation which may require a major operation; (f) use stimulants fearlessly, employ injections of normal salt solution under the skin, into the rectum and intra-venously, and try the

administration of nuclein; (g) before employing an antistreptococcic serum be sure that you have to deal with a pure streptococcus infection.—*R. C. Norris.*

The most constant and earliest symptoms are elevations of temperature, rapid pulse and relative or absolute insomnia.—*Ferre.*

For the occurrence of sepsis in child-bed the attending physician must usually hold himself to blame. Practically all causes of infection are within control, and puerperal sepsis is a preventable disease.—*Chas. Jewett, Canadian Practitioner.*

SIMPLE TREATMENT OF GANGLION.—Duplay (quoted by Lyon Medical) describes a simple, safe and invariably successful treatment for this troublesome affection. This consists in the injection of a few drops of iodine into the cyst. Such injections must of course be practiced under antiseptic precautions, the needle being driven in at a point where the cyst is most prominent, the skin having first been drawn aside so that a valvular opening is made. The cyst is not previously evacuated, but the iodine is driven directly in. A small antiseptic dressing is applied with a bandage. Cure is accomplished in five or six days. Sometimes in large cysts a second injection is necessary.—*Therapeutic Gazette.*

To REMOVE TATTOO MARKS.—Make a mass, the consistency of dough, with salicylic acid and glycerin; apply to the tattoo marks and confine with a compress and strips of adhesive plaster for one week. Then remove the layer of epidermis over the marks and apply salicylic acid and glycerin as before. It may be necessary to repeat three times, but usually the second application removes the marks.—*Med. Brief.*

SANDER & SONS' EUCALYPTOL EXTRACT (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

ACUTE INFLAMMATION OF THE PROSTATE GLAND.—*The Journal of the American Medical Association*, for August 20th, contains a report on inflammation of the prostate gland, which was presented to the Section on Surgery and Anatomy at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898, by Liston Homer Montgomery, M.D., of Chicago, Ill. His plan of treatment in acute inflammation of the prostate gland is to wash out the abscess cavity with hydrogen peroxid, give copious hot water enema and hot hip baths frequently, avoid morphine internally, and advise care lest the patient strain at stool or during micturition. On the theory that toxines are retained in the circulation and within the gland, and to prevent degeneration in the gland substance, he administers triticum repens or fluid extract tritipalm freely, combined with gum arabic or flaxseed infusion. Along with these remedies the mineral waters, particularly vichy with citrate of potash, go well together. Hydrate of chloral or this salt combined with antikamnia are the very best anodyne remedies to control pain and spasms of the neck of the bladder. These pharmacologic or medicinal remedies are the most logical to use in his judgment, while externally, applications of anunction of 10 or 20 per cent. iodoform, lanoline, as well as of mercury, are also of value.

SUBCLAVIAN ANEURYSM:—Dr. B. G. A. Moynahan in the *Annals of Surgery* for July reports a very interesting case of subclavian aneurysm which presents many interesting features: the mode of exposing the artery, the mode of treating the aneurysm by excision, the perfect operative recovery, the formation of a second aneurysm on the 59th day on the proximal side of the primary one, its treatment, by ligation of the innominate and common carotid artery, are all points worthy of consideration. In the first operation the artery was exposed by excising a large section of the clavicle, which with the attached subclavian muscle were displaced backward by means of a silk retractor. The manner in which this section of bone was removed is claimed as original: “The clavicle being cleared on its anterior surface four holes were now drilled through it, two about $\frac{1}{2}$ inch

apart, at a distance of $1\frac{1}{2}$ inches from the sterno-clavicular articulation, and two, the same distance apart, at the junction of the middle and outer thirds of the bone. Between the inner and outer two the bone was sawn through with Hey's saw." In the second operation, that of ligature of the innominate and common carotid arteries, the vessels were exposed by excising the inner end of the clavicle and a section of the sternum in a way similar to that described. A review of the history of spontaneous aneurysm of the third portion of the subclavian discloses but 58 cases, but 8 of which recovered. Of these 58 cases 43 were treated by proximal ligature (with 3 recoveries), 6 by distal ligature (with 1 recovery), 6 by amputation at the shoulder-joint (with 2 recoveries), 2 by opening the sac and 1 by excision, the latter procedures with 1 recovery each. In selecting a method of treatment one must either choose distal ligature or excision of the sac; comparing these two methods from the standpoint of the mortality, of the probability of the recurrence, or of gangrene, and of the "quality" of recovery, the balance weighs in favor of excision, for after this operation there is a far greater chance of recovery, there is absolutely no risk of recurrence, there is far less risk of gangrene, and finally there is less likelihood of there being any of those sequelæ due to nerve-interference.

NITROGLYCERINE IN SPASMODIC CROUP.—G. G. Marshall, writing in the *Atlantic Medical Weekly* of May 28, 1898, says he has found nitroglycerine to be an ideal remedy; it being tasteless and stimulating rather than depressing makes it especially suited to these cases. As children vary in their susceptibility to this drug, it is best to give it in small doses, frequently repeated until relief is obtained or the physiological effect of the drug is manifest. Children from five to ten months old can take from $\frac{1}{1000}$ to $\frac{1}{500}$ grain, repeated in five to ten minutes, if no effect is noticed. Usually in ten minutes there is marked relief in the dyspnea and general appearance of the child. By repeating these doses from every ten to fifteen minutes to once in one to three hours the laryngeal spasms are controlled. Sometimes it is not necessary to repeat more than once or twice; at other

times it has to be continued at more or less frequent intervals for two or three days.

By this treatment, in the majority of cases, one avoids the unpleasant use of emetics. The immediate and definite results obtained by the use of nitroglycerine are extremely gratifying to the physician and certainly not less to the parents. Not only in difficult laryngeal breathing of children does nitroglycerin give relief, but many times in adults, especially in nervous and hysterical women. And those cases of dyspnoea which would be relieved by bleeding are equally well relieved by free doses of nitroglycerin.

In membranous croup also we get more or less relief, for a time at least, and it may be sufficient to avoid the necessity of intubation. Those cases that it will help and those that it will not cannot be determined except by trial. When it fails you have lost little time, and can then resort to the usual methods of treatment.—*Medicine.*

SURGICAL HINTS.—Never allow rubber plaster to come in contact with a surface uncovered by normal skin. Since it cannot be sterilized by heat, it must be considered as dirty.

Before operating, always find out whether the patient has any malarial history. The discovery of this fact will save you many a bad scare when temperature rises suddenly after operation.

As long as any urine issues from the urethra it cannot be said that there is an impassable stricture. Patience and gentleness will do wonders. The most skilful surgeons see very few strictures that prove impassable.

An aseptic dressing placed over a wound that is expected to unite by first intention should be left undisturbed until it is time to remove the stitches, or until there is reason to believe that the case is not running the expected aseptic course.—*International Journal of Surgery.*

THE OIL OF SASSAFRAS will destroy all varieties of pediculi and their ova with a single application. Care must be taken to prevent its coming in contact with mucous membranes. Any burning from this cause can be allayed in a few minutes by pouring on olive oil.—*Medical Brief.*

DISCUSSION ON ABORTION BEFORE THE LOUISVILLE CLINICAL SOCIETY.*—Dr. W. C. Dugan: I was called this morning to see a case in consultation with a gentleman in the western part of the city. A young woman, twenty years of age, had been bleeding very actively from the uterus for the last four weeks. The doctor asked me to see the case with him, and come prepared to do a curettment. I found the young woman in good flesh, but rather anemic, as she had lost considerable blood. She was put upon the table and examined. I found the os soft and patulous, so that my finger could be introduced into the uterus, which was very large, and membranes protruded through the os. Of course I recognized immediately that an abortion had caused the trouble. The young woman was growing worse from day to day. The doctor had been thrown entirely off his guard in the case, because of the standing of the family, etc., and had not suspected for a moment that the girl had been pregnant.

A criminal abortion had evidently been performed, and the question I desire to ask the society is, what should be done in a case of this kind. I went to see the patient, supposing it was a chronic case of endometritis. I believe we ought in some way to protect ourselves in a case of this character. Suppose the woman should die; being the picture of health an autopsy might be held; it would be shown that the other physician and myself visited the patient this morning and we would probably be accused of producing upon her a criminal abortion. I would like to know what action should be taken in such a case.

Dr. W. H. Wathen: This is a serious question to decide, and each case will have to be decided upon the conditions that exist and pertain to the particular case. Where there is danger of death from sepsis or any other cause, I feel that the physician ought to protect himself by telling some one the nature of the case. He ought to do it in confidence, and if everything turns out right there will probably be no trouble resulting from it. But I do not believe any doctor is justified in taking the risk, subjecting himself to the danger of being reported as an abor-

* Stenographically reported for the *N. Y. Medical Times* by C. C. Mapes, Louisville, Ky.

tionist, and probably written up in the papers or arrested as an abortionist to save the reputation of some woman who probably has not much reputation to save. I would not attend a case of this kind without telling somebody of its nature. We are constantly in danger of getting into trouble by being called to see patients upon whom others have performed abortions. And again women not infrequently, either purposely or through ignorance of what they are doing, deceive us, and we are apt to do something unless we are very guarded that will induce an abortion. I believe that Dr. Dugan and the physician who has attended the case are justified in telling the parents or nearest friends the nature of the girl's illness.

Dr. W. F. Boggess: General practitioners meet these cases often, not only where abortion has been criminally performed in a bungling way, but where it is done by the professional abortionist, and it is a question that makes the young practitioner's hair stand on end to know just what to do in such cases, and even should he decide to attempt their protection, there is always a certain odium in connection with the case should it terminate fatally.

I recall two cases of this kind, one was five years ago, the other more recently. Five years ago I remember to have been asked to see a case where a doctor was treating a young lady for typhoid fever. She had a septic fever, and in feeling over the abdomen I found no tenderness in the right iliac fossa, but there was exquisite tenderness in the uterus; there was also considerable tympany. I asked the mother to bring me a bowl of fresh water—simply an excuse to get her out of the room. I then said to the girl: "You have had an abortion. She said, "Yes, that is true; but do not tell mother." When her mother came back in the room I told her all about it, and made the girl confess not only who had performed the abortion, but the author of the trouble, and the next day after that the girl died. Now, the question came up in my mind, and I take it Dr. Dugan referred to the same question in reporting his case. Should the patient die, as happened in my case, ought we to report the occurrence to the authorities? I think not, simply because there

is no law, it seems, in this State by which the abortionist can be convicted. There has been but one conviction that I can recall in this city within the past ten years, notwithstanding the fact that several parties have been before the courts at different times on this charge. It is almost impossible to secure a conviction, and even if the patient should die, I think it is best for the doctor not to say anything about it, and put the death down to sepsis or something else. There is nothing to gain by reporting it as death from criminal abortion, and we may get ourselves into trouble by so doing. We cannot do any damage to the abortionist; lawyers tell me that it is almost impossible to convict one of them. Even in those cases where legal protection has been in evidence, ante-mortem statements, etc., the criminal abortionist gets out on some technicality. If Dr. Dugan's patient should die, I believe he should tell all her friends. I think a doctor is criminal who allows the patient to die without informing the parents or nearest friends of the nature of the case.

Dr. W. H. Wathen: About fifteen years ago I was treating a woman and did not know she was pregnant until about five o'clock one afternoon she came to my office bleeding profusely from the uterus and with symptoms of abortion. I gave her some morphine as quickly as possible, called a coupe and sent her home. I did not know even where she lived—in fact, she had given me as her address a place at which she did not live. I heard nothing more of the case until some hours afterward, when I was telephoned to come to a certain number on a certain street. There I found this woman in an abortion, suffering great pain. She was boarding with a widow, and knowing that the patient had just come from my office in a coupe, and that she was having an abortion, the widow immediately began to raise a terrific fuss, saying that I had brought disgrace upon her house, etc. I went out immediately and telephoned for Dr. Griffith, and waited for him to go back with me. I said to the woman: "You are having an abortion." She said, "Yes." "Now tell me who induced this abortion." She gave me the doctor's name. If I had not taken Dr. Griffith with me, and if I had not forced this woman to give me all the facts in the case, the chances are next day the papers would have been full of a case where Dr. Wathen had induced an abortion on a certain woman, etc.

Dr. W. C. Dugan: My only reason for reporting the case was to elicit the views of the Society as to the best manner of protecting ourselves. When I left the case this morning, I called the doctor's attention to the conditions present; told him that this girl was in a septic condition, that he knew what sepsis meant in such cases, and the girl had been in this condition for four weeks. I called his attention to the membranes which were removed, and then he understood for the first time that it was an abortion. I told him that we must arrange in some way to protect ourselves, and as he knew the family, he should lay the matter plainly before them, so it could be understood; that while we did not expect the girl to die, it was well to prepare for "war in time of peace." The girl is boarding with some friends, her parents not being in the city, and the doctor promised to go there this afternoon and explain the nature of the case fully, that they might understand the matter, so if she should die we are protected.

THYROID GLAND IN HEMOPHILIA.—Delace reports in the *Journal de Medicin de Paris* of January 23, 1898, the case of a woman suffering from this disorder who was anemic, the extremities covered with purpura, bleeding gums, and excessive menstruation. Ergotin and hemostatics failed. When thyroid capsules were tried the hemorrhages disappeared, color returned, and the purpura cleared up.—*Medicine.*

Editorial.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The arrangements for the 24th Annual meeting to be held in the Representative Hall of the State Capitol in this city, October 11, 12, 13 and 14 inst., are well under way and well nigh in a state of completeness and perfection. The correspondence of the Secretary, Dr. H. E. Tuley, of Louisville, Ky., the Chairman of the Committee of Arrangements, Dr. Duncan Eve, of this city, and the Chairman of the Sub-Committee on Exhibits, all point to a most successful and satisfactory meeting. There is no season of the year that a visit to this latitude will be so agreeable and

enjoyable, and the visiting members may rest assured that the citizens of Nashville, on this occasion, will see to it that their former well earned reputation for hospitality and courtesy will be thoroughly sustained.

It is possible that a few who intended being present may be prevented by the exigencies of their professional duties in a few localities where yellow fever has made a limited appearance; but those from other sections need have no hesitation on this score, as in all the past history of Nashville not a single case has developed within its confines, and the season of frost will be so near at hand if not already existent—from the 5th to 15th of October being its annual period of recurrence, that no fears whatever need be entertained on this score. With a good railroad service—get through ticket from starting point, paying one full fare, and ask for certificate or receipt, which, on being handed to the Secretary or to a member of the registration committee at time of registration, will be signed by Secretary and the Agent of the Passenger Association, and will entitle the bearer to a return trip ticket at one-third regular rate at any time within three days after the close of the meeting; with excellent hotels at very reasonable rates, a trip to the capital city of the grand old volunteer state can but be most enjoyable and agreeable at this season to any of our professional friends, their wives and families who will be entitled to all the courtesies of the occasion. Any member of the regular medical profession can become a member of this association, which in point of members is second only to the American Medical Association.

The following to which some additions may be made is the program:

First Day, Tuesday, October 11, 1893, Morning Session, 10 O'clock.

Addresses of Welcome—Dr. C. S. Briggs and Hon. Jas. M. Head, of Nashville, Tenn.

Reports of Officers and Committees.

Executive Business.

Inaugural Address by the President—Jno. Young Brown, of St. Louis, Mo.

Diagnostic and Therapeutic Uses of Tuberculin—Chas. W. Aitken, Flemingsburg, Ky.

Immunity—Chas. T. McClintock, Detroit, Mich.

Hygiene versus Drugs in Pulmonary Tuberculosis—Charles L. Minor, Asheville, N. C.

Some of the Factors that Predispose to Tuberculosis—L. P. Barbour, Tullahoma, Tenn.

The Bicycle from the Medical Standpoint—I. N. Love, St. Louis, Mo.

Therapeutic Value of Marmoreck's Serum—W. L. Baum, Chicago, Ill.

Unguentum Hydrargyri or Blue Ointment Administered by the Mouth—Albert Bernheim, Paducah, Ky.

Ocular Tension; Peripheralism; Foreign Clinics—W. B. Meany, Louisville, Ky.

Operative Procedures in High Degrees of Myopia with Report of

Cases—Allen T. Haight, Chicago, Ill.

A Theory of Nystagmus—Chas. H. Beard, Chicago, Ill.

Afternoon Session, 3 O'clock.

Wounds of the Lachrymal Apparatus: Report of Operation for Restoration of Canaliculi Obliterated by Traumatism—Geo. F. Keiper, Lafayette, Ind.

Mastoiditis: When to Operate and How—Andrew Timberman, Columbus, O.

Three Anomalous Cases of Mastoid Disease—J. L. Minor, Memphis, Tenn.

Prophylaxis in Diseases of the Nose and Throat—J. Homer Coulter, Chicago, Ill.

Headache as a Symptom in Eye Disease—W. H. Wilder, Chicago, Ill.

Report of Holocain as a Local Anesthetic in Ophthalmic Surgery—E. C. Ellett, Memphis, Tenn.

Incarceration of the Iris Relieved by Eserine: Report of a Case—Frank Trester Smith, Chattanooga, Tenn.

A Case of Bilateral Glioma of the Retina: Operation, Non-Reurrence in Seventeen Years—A. G. Sinclair, Memphis, Tenn.

Tonsillitis or Quinsy; Cause and Treatment—J. A. Stucky, Lexington, Ky.

Neuralgias Due to Nasal Origin—Edward T. Dickerman, Chicago, Ill.

Remarks on Hydrocephalus, with Report of Two Cases—James Moore Ball, St. Louis, Mo.

Conservatism in Oral Surgery—Truman W. Brophy, Chicago, Ill.

Second Day, Wednesday, October 12, 1898—Morning Session, 9:30 O'clock.

Reports of Committees.

Appointment of Nominating Committee.

Address in Medicine: "Diabetes Melitus"—Dr. James T. Whittaker, Cincinnati, O.

The Relations of the Gynecologist and the Neurologist—W. H. Huston, Cleveland, Ohio.

Discussion Opened by C. H. Hughes, St. Louis, and Jos. Price, Philadelphia, Pa.

Complete Inspection of the Rectum by Means of Newer Mechanical Appliances—Thos. Chas. Martin, Cleveland, O.

The Relationship between the Genito-Urinary Tract and Rectum: In Operations Upon the Female, Which should Receive Priority?—John L. Jelks, Memphis, Tenn.

Rectal Fistula—J. R. Pennington, Chicago, Ill.

The Surgical Management of Complex Progressive Ischio-Rectal Fistulae—Leon Straus, St. Louis, Mo.

Hydrotherapy in Stomach Diseases—Geo. D. Kahlo, Indianapolis, Ind.

Phases of Toxaemia from Disturbed Metabolism—Thos. Hunt Stucky, Louisville, Ky.

The Vascular Dermatoneuroses—A. E. Brayton, Indianapolis, Ind.

A Clinical Report of a Case of Abscess of the Liver—Edwin Frazer Wilson, Columbus, O.

The Importance of Early Diagnosis in Surgical Cases—J. C. Morfit, St. Louis, Mo.

A Unique Case of Hernia—Spencer Graves, St. Louis, Mo.

Radical Cure of Inguinal Hernia by Fowler's Method—H. O. Walker, Detroit, Mich.

Gonangectomy and Orchidectomy for Hypertrophied Prostate in Old Men—George W. Johnson, Dunning, Ill.

Afternoon Session, 3 O'clock.

Why I Have Abandoned the General Practice of Vaginal Hysterectomy—B. Sherwood Dunn, Boston, Mass.

Why I Do Vaginal Ablation in Pus Cases—Wm. R. Pryor, New York City.

A Consideration of the Limit to Operative Gynecology—Shelby C. Carson, Greensboro, Ala.

The Limits of Operations for Cancer of the Uterus—L. S. McMurtry, Louisville, Ky.

Cancer of the Uterus—Louis Frank, Louisville, Ky.

Surgical Treatment of Pus in the Pelvic—Joseph Price, Philadelphia, Pa.

The Therapeutic Value of Leaving Normal Salt Solution in the Abdominal Cavity after Celiotomies—J. Wesley Bovee, Washington, D. C.

Some Pathological Conditions of the Ovaries Causing Pain—G. W. Halley, Kansas City, Mo.

A Case of Abdominal Hysterectomy with Stercoraceous Vomiting; Recovery—H. Hatch, Quincy, Ill.

A Plea for Pelvic Cellulitis and Peritonitis—F. F. Bryan, Georgetown, Ky.

The Treatment of Peri-Uterine Inflammation—W. E. B. Davis, Birmingham, Ala.

The Diagnosis of Gonnorrhœa in Women—J. Rilus Eastman, Indianapolis, Ind.

Care and Repair of the Female Perineum—E. L. Larkins, Terre Haute, Ind.

Clinical Contributions to Ectopic Gestation—W. W. Taylor, Memphis, Tenn.

Retro-Displacements of the Uterus and their Treatment—A. Morgan Cartledge, Louisville, Ky.

EVENING.—GENERAL RECEPTION, MAXWELL HOUSE.

Third Day, Thursday, October 13, 1898—Morning Session.

Reports of Committees.

Address in Surgery: "Surgery of the Kidney"—Dr. Geo. Ben Johnson, Richmond, Va.

Observations on Surgery of the Kidney—Charles A. L. Reed, Cincinnati, O.

Nephrolithiasis—A. E. Halstead, Chicago, Ill.

Suprapubic Cystotomy versus Perineal Section—James M. Parrott, Kingston, N. C.

When Shall we Operate for Appendicitis—Edwin Walker, Evansville, Ind.

Some More About Drainage—Arch Dixon, Henderson, Ky.

Practical Side of the Treatment of Gunshot Wounds of the Abdomen—H. Horace Grant, Louisville Ky.

Some Clinical Phases of Intestinal Obstruction—A. H. Cordier, Kansas City, Mo.

Clinical Application of Experimental Evidence in the Prevention and Treatment of Surgical Shock—Geo. W. Crile, Cleveland, O.

Essentials of Success in Abdominal Surgery—F. F. Lawrence, Columbus, O.

A Case of Rupture of the Uterus During Delivery—J. H. Carstens, Detroit, Mich.

The Triple Operation for Pyloric Stenosis—N. Stone Scott, Cleveland, O.

Surgical Treatment of Ophthalmic Goitre—Bayard Holmes, Chicago, Ill.

Some Forms of Gangrene and their Treatment—J. S. Nowlin, Shelbyville, Tenn.

Double Amputation; A Report of Two Cases—Alex. C. Wiener, Chicago, Ill.

Surgical Treatment of Infantile Paralysis—Alex. C. Wiener Chicago, Ill.

Afternoon Session, 3 O'clock.

Sub-periosteal Removal of Caries from the Pelvic Basin, with the Report of a Case—S. E. Milliken, Dallas, Texas.

Neurasthenia and its Treatment—H. C. Sharp, Jeffersonville, Ind.

Tumors of the Parietal Lobe of the Cerebrum—T. A. Davis, Jeffersonville, Ind.

Opium in the Treatment of Epilepsy—Frank C. Hoyt, Chicago, Ill.

The Neuro-Hypothesis of Rheumatoid Arthritis—F. P. Norburg, Jacksonville, Ill.

The Arthritic Diathesis—R. A. Bate, Louisville, Ky.

A Trilogy of Diseases: Acute Articular Rheumatism, Endocarditis, Chorea—Albert E. Sterne, Indianapolis, Ind.

Direct Diagnosis of Diphtheria—William K. Jaques, Chicago, Ill.

Diphtheria and its Logical Treatment—A. M. Osness, Dayton, O.

Report of a Case of Obstetrics with Complications—R. C. Pratt, McKenzie, Tenn.

A Broeck Presentation with an Unusual Complication—J. Hunter
Lake, Louisville, Ky.

Interesting Surgical Cases—M. Goldman, Memphis, Tenn.

Pichi—H. W. Whitaker, Columbus, O.

A Few Practical Points in the Treatment of Posterior Urethritis—A.
Vogli, Cincinnati, O.

Varicocele—F. E. Kelly, LaMoille, Ill.

Syphilis—John M. Batten, Pittsburgh, Pa.

Prevention of Venereal Disease—David Lieberthal, Chicago, Ill.

Fourth Day, Friday, October 14, 1898.—Morning Session, 9:30 O'clock.

Report of Committee on Nominations.

Installation of Officers elect.

Gall-Stone Surgery—Hal. C. Wyman, Detroit, Mich.

Intermingling and Change of Type in Diseases—W. Gaston McFadden,
Shelbyville, Ind.

Mercury: Its Action—William F. Barclay, Pittsburgh, Pa.

Pharmacology of the Strontium Salts with Especial Reference to their
therapeutic Value—Leon L. Solomon, Louisville, Ky.

Helianthus Annuus: The Alkaloid as a Propylactic for Zymotic
diseases, also Therapeutically in Malaria and Rheumatism—Jos. A.
Tompson, Alexandria, Va.

The Artificial Production of the Plasmodium Malaria and the Ra-
cial Treatment for the Removal of Same in Malaria—L. H. Warner,
Brooklyn, N. Y.

How Should We Treat Typhoid Fever?—T. Virgil Hubbard, At-
lanta, Ga.

Cardiac Murmurs—S. W. Fain, Chattanooga, Tenn.

THE STATE MEDICAL SOCIETY OF ALABAMA, GEORGIA AND TENNESSEE.

The following are some of the papers which will be read at the tenth
annual meeting, which meets in Birmingham, Ala., October 25th, 26th
and 27th, 1898:

President's Address—J. A. Goggans, Alexander City, Ala.

Early Diagnosis of Cancer of the Uterus—Thomas E. Cullen, Balti-
more, Md.

Acute Anterior Poliomyelitis—E. D. Bondurant, Mobile, Ala.

A Case of Complete Obstruction of the Common Bile-Duct by Float-
ing Gall-Stones—W. H. Hudson, LaFayette, Ala.

A Simple Operation for Hemorrhoids without Injections, Ligature,
Sump, Cautery, or Crushing—R. R. Kime, Atlanta, Ga.

Total Amputation of the Penis so that the Patient Can Urinate Nor-
mally—H. M. Hunter, Union Springs, Ala.

Impotence—W. H. Mangum, Georgiana, Ala.

Extirpation of the Pancreas—H. Berlin, Chattanooga, Tenn.

Two Cases of Surgery—S. W. Purifoy, Lowndesboro, Ala.

Fracture of the Spine; Presentation of Two Cases—B. G. Copeland, Birmingham, Ala.

The Treatment of Intestinal Obstructional and Constipation by Electric Injections—R. P. Johnson, Oak Park, Ill.

Conservative Gynecology per Rational Medication—R. H. Hayes, Union Springs, Ala.

Ectopic Gestation—W. E. B. Davis, Birmingham, Ala.

Modern Treatment of Corneal Opacities, with Report of Cases—M. L. Heffelfinger, Huntsville, Ala.

Keratitis—A. A. Greene, Anniston, Ala.

Purulent Ophthalmia; New Method of Treatment—Frank Trester Smith, Chattanooga, Tenn.

Fevers of Alabama—Charles McAlpin Watson, Florence, Ala.

Some Fevers of St. Clair County, Alabama—Eugene P. Cason, Ragland, Ala.

Continued Malarial Fever in Southeastern Alabama—Wm. R. Belcher, Daleville, Ala.

Typhoid Fever—H. Eugene Mitchell, Oneonta, Ala.

Typhoid Fever—E. A. Mathews, Clanton, Ala.

Typhoid Fever; Report of Cases—C. L. Guice, Harris, Ala.

Some Suggestions in the Treatment of Typhoid Fever—J. C. LeGrand, Birmingham, Ala.

Diphtheria—H. L. Appelton, Cedar Bluffs, Ala.

Chorea—S. W. Fain, Chattanooga, Tenn.

Suggestions in the Healing Art—E. T. Camp, Gadsden, Ala.

TUBERCULOSIS AND ITS TREATMENT BY THE LATER METHODS.

The *Journal of the American Medical Association*, July 23, 1898, presents a report of A. G. Deardorff, M.D., San Francisco, made to the annual meeting of the American Medical Association, at Denver, of twelve cases of tuberculosis treated by serum made by Paquin, of St. Louis, with four cases in first stage recovered; in the second stage two greatly improved; one well in the third stage, and several benefitted.

In conjunction with serum, Dr. Deardorff advises tonics, cod-liver oil, antiseptics sprayed in the throat and lungs of boro-lyptol, listerine, etc. When pus exists in the sputum he uses Anti-Streptococcus Serum alternately with the Anti-Tubercle.

FOR ACUTE CYSTITIS.—Bromide of Potash oz. $\frac{1}{2}$; fid. ext. gelsemin gtt. 10; fid. ext. hyoscyam, dr. 2; lithiated hydrangea (Lambert), q. s. ad oz. 4. Mix. A dessertspoonful every four hours. Milk and flax seed tea as drinks.—*Kansas Medical Index*.

OUR MEDICAL SCHOOLS.

The three Medical Schools of this city show a decided increase over the same period of last year. The preliminary term running through the month of September was more largely attended than last year, and the regular term commencing with the current month will find them all with largely increased classes, exceeding any previous year. This is but as it should be, with so pleasant a city in which to spend the winter months, with faculties experienced, energetic and progressive, with buildings thoroughly adequate and fully equipped with the latest and most approved laboratory and other teaching paraphernalia, with a large and modern Charity Hospital, which has been thoroughly overhauled and renovated, together with the Free Dispensaries in connection with each College affording a most ample supply of clinical material, the medical student who will avail himself of the advantages offered will find nothing lacking.

THE EXTERNAL USE OF SALICYLIC ACID.—A point of much importance which has been overlooked in the use of salicylates in the treatment of rheumatic and neuralgic conditions is the external application of the remedy. The efficacy of this procedure is at once apparent to the practical and progressive physician, since thereby he can apply the drug directly to the part affected, so that the greatest quantity is absorbed where it is most needed. Furthermore, by this method the disturbing effects of internal medication upon an irritable stomach and sensitive nerves can be entirely avoided.

Some of the most eminent French physicians have ascertained by extensive clinical experimentation that the salicylates and especially the salicylate of sodium dissolved and used as a liniment, when applied to the fleshy part of the thigh where the skin is of a delicate texture, are rapidly absorbed and slowly eliminated, thus securing the full potency and value of the remedy with the least disturbance and irritation to the alimentary tract.

The internal administration of any one of the Tongaline preparations as indicated, given at short intervals, and each dose washed down with plenty of hot water, as hot as the patient can bear it, may be supplemented by the local application of Tongaline Liquid. In this manner the therapeutic effects not only the salicylate of sodium but of the other ingredients of Tongaline are felt very promptly and to such an extent that the acute pains of rheumatism and neuralgia are quickly allayed and the patient enabled thereby to obtain refreshing and tranquil sleep, while the strong eliminative action of Tongaline by being used both internally and externally speedily induces the desired results.

IMPERIAL GRANUM never interferes with the action of the medicines prescribed; it is neither a stimulant nor a chemical preparation; it con-

tains no malt, no cane-sugar, no glucose, but is an absolutely pure food, most carefully and conscientiously prepared from the finest growths of wheat, containing a large quantity of nourishment, requiring the least possible labor for its digestion and assimilation, thus forming an unrivaled nutriment for the invalid and convalescent; a safe and acceptable nutritive during gestation and for nursing mothers, and a very superior aliment for infants, from birth, and for children.

Its value in typhoid and all fevers, in inanition due to mal-assimilation, and in all gastric and enteric diseases, especially in dysentery, diarrhoea, cholera morbus and cholera infantum, has been uncontestedly established in thousands of cases, often in instances of consultation over patients when it proved the only nourishment the stomach would tolerate when life seemed depending on its retention.

It stands pre-eminent as a food for patients recovering from shock attending surgical operations and accidents, and as the first food to be given after the antidote in poisoning cases.

It is an easily swallowed, soothing and sustaining food in diphtheria, pneumonia and other diseases of the throat and lungs; a palatable and wholesome article of diet for dyspeptic, consumptive, delicate and aged persons.

It is an ideal co-adjuvant to milk, and no matter what your preference may be as to the form in which milk should be used, whether it is modified, sterilized, pasteurized, peptonized, treated by some other method, or natural, the perfect co-adjuvancy of the Imperial Granum can always be depended on.

IN THE TREATMENT OF TYPHOID FEVER when the temperature rises above 102. 5° F. it is, as a rule, conservative of the strength of the patient to use some antipyretic measure.

Delirium, insomnia, restlessness, headache, cardiac weakness may, to a great extent, at least be avoided by preventing or relieving high temperature. Sponging is efficient, bathing besides being cruel to the patient is attended by bad results as evidenced in increased mortality and increased frequency of perforation, of hemorrhage, of relapses.

Coal tar products are tabooed as being depressant and dangerous. But these objections do not apply to Kryofine, which is powerful, but safe, prompt, sure and pleasant in action. It does not act on the blood itself as does acetanilid for instance, and in the therapeutic doses (which means doses suited to the individual) it is perfectly harmless. Each dose causes distinct euphoria. Insomnia is lessened or relieved. High temperature is reduced without affecting the heart in an objectionable way. Neither complications nor age of patient are contra-indications to its use. It is not a panacea or specific, but does meet the indications in typhoid fever excellently well (those of high temperature, insomnia, pain and their results.)

EDITORIALS.

Dr. A. M. Owens, of Evansville, Ind., died suddenly of heart disease September 18th. Dr. Owens was a man of superior professional ability, and prominent as a practitioner of surgery in southern Indiana. His personality was of the sunny, genial order, and his friends were numberless. Many a heart will ache because of his demise.

ETHICAL.—Read carefully the statement, over Table of Conte made by Chas. Roome PARMELE Co. It is decidedly a new departure and most worthy of commendation. The therapeutic value of MERCA and ARSENALO have been well and thoroughly proven. In our personal experience, in quite a series of cases, they have been truly valuable.

THE URIC ACID diathesis and its accumulation in the system give little trouble and annoyance to the practical physician. Lithia is a great antidote and is offered in a new form by the Vass Chemical Co. Danbury, Conn., chemically combined with an alkaline laxative, under the name of Thision. It is especially indicated in Gout, Rheumatism and like conditions as well as in constipation, inactive liver, and obesity.

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THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION hold its regular annual meeting in Memphis November 8th, 9th and 10th. This promises to be one of the most successful sessions in the history of the Association. Papers have been presented by many of the lead surgeons and gynecologists of the country, especially of the South. Members of the medical profession are earnestly and cordially invited to attend.

Reviews and Book Notices.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS: With especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. DE SCHWEINITZ, EDWARD MARTIN and BARTON C. HIRST. New (seventh) edition. In one octavo volume of 770 pages, illustrated. Cloth, \$3.75; leather, \$4.50, net., 1898. LEA BROTHERS & Co., Philadelphia, and New York, Publishers.

The success of Professor Hare's Text-Book of Practical Therapeutics is phenomenal and well merited. The first edition appeared in 1891, and the seventh follows in just seven years. The author has diligently improved his opportunity by thoroughly revising his work at each of the frequent calls for a new edition, so that the medical public may look to it for the latest real advances in its most progressive department, and may trust its authority.

The favor it has received is owing to its very ingenious plan and to masterly execution. The volume consists essentially of two parts, one on drugs and other remedial measures, and the other on diseases, each being arranged alphabetically for convenience of reference. The rational classification of drugs is given succinctly in a few pages. Each of the two parts is written with the other in view, and copiously cross-referenced. The reader desiring to know all the material facts concerning a drug can instantly find the information in the first half of the book with references carrying him to the applications in the various diseases discussed in the second part; or if desiring knowledge concerning the treatment of any special disease, he can quickly find it under the alphabet of diseases, with full therapeutic directions and prescriptions for various stages and complications, and references to the first part where all details concerning the individual drugs are given. To consummate quickness of reference Dr. Hare has prepared two indexes,

likewise unique, one of drugs, and the other of diseases and remedies, the latter being annotated with suggestions, doses and other information of the most useful kind. In a word, Dr. Hare's work is not only an unrivalled text-book on therapeutics, but obviously a most convenient as well as authoritative guide to the practice of medicine.

VIERORDT'S MEDICAL DIAGNOSIS. By OSWALD VIERORDT, M.D., Professor of Medicine at the University of Heidelberg. Translated, with the author's permission, from the Fifth Enlarged German Edition, by FRANCIS H. STUART, A.M., M.D., Member of King's County Medical Society, New York; Fellow of the New York Academy of Medicine; Member of the British Medical Association; Ex-President of the Brooklyn Pathological Society; Obstetrician to the Brooklyn Hospital, etc. Fourth American, from the Fifth German Edition. Handsome royal octavo volume of over 600 pages, with 194 illustrations, many of them in colors. Prices: Cloth, \$4.00 net; Sheep or Half Morocco, \$5.00 net. W. B. Saunders, 925 Walnut St., Philadelphia, Publishers. 1898.

The present edition of this highly successful work has been translated from the fifth German edition. Many alterations have been made throughout the book, but especially in the sections on Gastric Digestion and the Nervous System.

It will be found that all the qualities which served to make the earlier editions so acceptable have been developed with the evolution of the work to its present form.

Upon its first publication, Vierordt's Medical Diagnosis was translated into Russian and Italian, as well as English, and was most cordially welcomed by the medical profession in all parts of the world. "It is a veritable mine of information on all points in medical diagnosis," and a distinguished professor of medicine has said of it, "I have never read a medical work from which I derived so much profit."

During the past nine years, we have had occasion to notice the preceding editions, and now as then, can say that it is a most valuable work for both student and practitioner.

LECTURES ON TUMORS. By JOHN B. HAMILTON, M.D., LL.D., Professor of Surgery, Rush Medical College and Chicago Polyclinic; Surgeon to Presbyterian Hospital; Consulting Surgeon to St. Joseph's Hospital, etc., etc. 8vo., cloth; third edition; 21 illustrations. Price, \$1.25. P. BLAKISTON'S SONS & CO., 1012 Walnut Street, Philadelphia, Pa., Publishers.

This work as set forth in the preface by the author is intended for the study of the student, and in a concise and well arranged plan gives him a good comprehension of this very intricate subject in surgery. The introduction proceeds with the various methods used for diagnosis by the microscope, and is so simple and plain as to be readily grasped by the beginner in microscopy. The classification is excellent, the type plain and the work gotten up in neat style. As a guide to the diagnosis and treatment of tumors it has no superior. The work should be found in every medical library as it is the most complete work on the subject which has appeared in the English language.

A TEXT BOOK OF MATERIA MEDICA, THERAPEUTICS AND PHARMACOLOGY.—By GEO. FRANK BUTLER, Ph. G., M.D., Professor of Materia Medica and Clinical Medicine in College of Physicians and Surgeons, Medical Department University of Illinois; Professor of General Medicine and Diseases of the Digestive System, Chicago Clinical School; Attending Physician to Cook County Hospital; Member of the American Medical Association; Illinois State Society; Chicago Medical Society; Chicago Pathological Society, and Chicago Society of Internal Medicine. Second Edition, Revised, 8vo. Cloth, pp. 860, Illustrated. Price, \$4.00. W. B. SAUNDERS, 925 Walnut Street, Philadelphia, Publishers, 1898.

The revision and publication of the second edition of this work in so short a time is gratifying evidence of its excellent character, and its high appreciation by medical students, teachers and practitioners. Since the publication of the first edition there have been many advances in pharmacology, rather in the direction of clearing from obscurity the action of old remedies than in marvellous new discoveries; therapeutics naturally following the normal line of the evolution of science.

The recent important additions made to our knowledge of the physiological action of drugs are fully discussed in the present edition. Many alterations also have been made in the chapters on diuretics and cathartics.

One of the principal innovations is the introduction of a chapter on the Untoward Effects of Drugs. The tables given summarize all contributions to the subject to date.

Serum-therapy and the therapeutics of nuclein have attracted considerable attention during the past year, and these interesting topics receive due consideration in the present edition.

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DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX. NASHVILLE, NOVEMBER, 1898. No. II.

Original Communications.

MULTIPLE NEURITIS.

BY JOHN R. BUIST, M.D., OF NASHVILLE, TENN.

Multiple Neuritis, Polyneuritis and Peripheral Neuritis are all terms used, synonymously, to denote an inflammatory degeneration of one or more groups of the peripheral nerves, usually symmetrical, and attended with pain, tenderness and incomplete or complete paralysis.

The literature of multiple neuritis forms a very interesting chapter in medical history, and has often elicited the comment: How strange it is that a disease filling so important a place in neuro-pathology should have remained unrecognized as a separate entity for so great awhile. It is only since 1880 that it has been given a place in special works on nervous diseases. The recorded observations and the clinical descriptions, for years

previous to this date, were both abundant and accurate, but the attention of the profession was not properly directed to it until its pathology and etiology were fully set forth by the labors of Joffroy, Leyden and Grainger Stewart, between the years 1879 and 1882. It is greatly to the credit of American medicine that, in the early days of our republic, we find the first concise and accurate account of the affection now called multiple neuritis. This account was furnished by Dr. James Jackson, of Boston, in the year 1822. His cases, many of which were women, were typical of alcoholic multiple neuritis, which for want of a better name, he called "arthrodynia a potu," thus recognizing one of the chief exciting causes. He distinctly states that the paralysis was in the muscles and not in the nerves, possibly meaning thereby that it was peripheral and not central. Some years later, Graves, of Dublin, and Chomel investigated together many cases and concluded the whole affection was peripheral and not due to central lesion. Again, from 1852 to 1855, Duchenne and other neurologists, not only recognized the alcholic form of neuritis, but proved that there were no lesions in the brain or cord to account for the paralysis. Nevertheless, the motor and sensory disturbances were generally referred to the cord. As late as 1864, Dumesnil published contributions on the subject, in which a well-observed case was recorded, and upon which an autopsy was held. Microscopic examination discovered that the nerve trunks and their ramifications had undergone degeneration, and further examination showed no alteration in the spinal marrow. Even these well-established conclusions failed to receive much consideration. Earlier special treatises on neurology, such as Dr. W. A. Hammond's first edition of 1870, and others of that date, have no chapter on the subject. Since 1882, however, great attention has been bestowed on its study, and its bibliography has grown to large proportions.

This is not only an interesting and important affection, but a very grave and serious one, and by no means uncommon. Its characteristic features are the involvement of many or all the nerves in the body, the production of complete palsy of all the limbs, often a long and tedious illness before recovery, and sometimes a fatal termination; and also that a large number of exciting causes are responsible for its production.

Dr. Ross has given us a detailed classification of multiple neuritis, based partly on its course and progress in some forms, and partly on the varied etiological factors.

1. The idiopathic form, as in Landry's paralysis.
2. The toxic, which is subdivided into:
 - (a) Those cases due to diffusible stimulants, as alcohol, etc.
 - (b) Those cases due to animal poisons, as diphtheria, typhoid, septicæmia, syphilis, tubercle, beri-beri and leprosy.
 - (c) Metallic poisons, lead, arsenic, etc.
 - (d) The endogenous, as gout, diabetes, etc.
3. The dyscrasic form, from cancer and other cachexia and vascular degenerations.
4. Sensory, vaso-motor and trophic, as found in ataxia and Raynaud's disease.
5. The irritative form, etc.

Our limits will only allow us to briefly discuss some of the toxic group, chiefly the alcoholic. Cases of multiple neuritis vary greatly in extent and intensity and in the final results. If the toxic cause has been operating for a long while, the case will be proportionately severe. If the respiratory nerves be involved, a fatal termination may rapidly ensue. If the system is broken down and visceral complications exist, the condition will be a very grave one. On the other hand, if the distribution is limited to a few groups and the exciting cause can be removed and the general health is fair, an easy course and short duration can be predicted.

The morbid anatomy in multiple neuritis is essentially the same as in isolated neuritis. The inflammation, which may be acute or chronic, sometimes attacks the axis cylinder, the myelin and the sheath of Schwann, constituting parenchymatous neuritis. Or the connective tissue may become primarily involved; interstitial neuritis. The important results in both instances being the impairment or abolition of the conducting power in the nerve, and finally the breaking up of the myelin and the complete degeneration of the axis cylinder.

It is well to remember the distinction between a nerve whose conductivity is lost by reason of a spinal lesion and one in which neuritis has occurred. In both cases the function may be equally lost. Where it is due to disease of the grey matter of the ante-

rior horns, the nerves proceeding from that center, degenerate downwards to the periphery; but in neuritis the inflammatory action begins in the nerve endings and extends upwards, the degeneration proceeding *pari passu* with the inflammation. As the nerve ceases to functionate, the muscular fibres supplied by it become flaccid and flabby, lose tone and very soon show atrophy. The normal faradic response is lost, and reaction of degeneration supervenes if recovery is long delayed. The remarkable feature in these apparently radical changes in nerve elements is the capacity of restoration through the process of regeneration, so that, although the function has for months been destroyed, under favorable conditions a return to the normal often takes place.

The nature of the toxin influences somewhat the morbid change. Lead acting specially on the myelin. Leprosy producing the interstitial type, while alcohol and diphtheria most generally excite a parenchymatous type.

The causation in the various forms of polyneuritis is an attractive part of the subject; investigations of recent years discovering a wide range of etiology. Long before our knowledge was systematized the abuse of alcohol was admitted to be an active cause, and now we know that it is the most common of all. It is not the man who indulges in periodic sprees, drinking heavily for a few days; but the steady drinker, provided he drinks daily to excess, that becomes the victim of neuritis. Thus we find that women are more frequently the subjects than men, probably because when they acquire the habit it is a constant indulgence, but as Gowers suggests, it may also be because of some peculiarity in that part of their nervous structure. Those who in addition to hard drinking, are poorly fed, hard worked and exposed to the inclemency of the weather, become more often affected. Alcoholic neuritis is often accompanied by meningitis, and hepatic and renal disease from the same poison.

The next largest group of cases are those poisoned by absorption of lead in one way or another. The commoner forms of lead poisoning, as colic, constipation and wristdrop, are by no means all the bad effects of this absorption of the metal. The brain, the spinal cord and the peripheral nerves are often extensively implicated. Those whose occupations bring them in close contact with the metal are liable, such as miners, smelters, the employees in

paint factories, painters, plumbers and those who drink water impregnated with some of the salts of lead, are all more or less liable to some form of peripheral paralysis.

In many instances the infectious diseases, through the toxin generated in the system, produce these results. Diphtheritic toxins are the best recognized of these, and although this has been known for many years, only of recent years has its full importance been admitted. Typhoid fever, measles, smallpox, syphilis, septicæmia and leprosy are now admitted to be responsible for a great many cases. It is doubted by some neurologists whether there is any purely rheumatic polyneuritis; and it is further a question whether cold and chilling can produce it. Most neurologists incline to the opinion that this chilling only presents a favorable condition for the development of some pre-existing toxin.

Symptomatology.—As in all nervous diseases, we can best arrange the symptoms that belong to multiple neuritis in the spheres of motor, sensory, reflex-visceral and psychic activities.

Paralysis, slight or complete, is the common and conspicuous sign of multiple neuritis. This loss of power in the muscle supplied by the nerve undergoing inflammatory degeneration is of the flabby, flaccid type, and along with this loss of tone comes loss of reflexes, together with that impairment of nutrition ending in atrophy and final and complete destruction of the muscle fibre and the nerve endings.

These correlated phenomena are easily understood when we remember their physiologic relations, which are precisely the same, whether the destruction takes place at the polar end of the neuron, as in poliomyelitis, or in the peripheral end, as in multiple neuritis. The five changes in the muscular tissue, namely, paralysis, flaccidity, atrophy, loss of tendon reflex and changed electrical reaction, although not equally prominent in every case, are cardinal symptoms, which, if rightly observed, will usually establish the nature of the case. In addition, these symptoms will be usually bilateral and symmetrical, because the toxins circulating in the blood reach both sides alike.

Where the patient is still able to walk, a striking peculiarity in his gait will be observable, due to loss of power to raise the toes; and in order to clear obstacles in the way, the knee and hip

must be more flexed and the foot raised higher, quite different from the swinging motion of the hemiplegic. In some cases in-coordination of the limbs occurs, while cramps and tremor are not exceedingly rare. Slow chronic contractions come on late in the case, especially in the hamstring muscles, giving the patient pain and distress.

The application of the Faradic and Galvanic currents are to be used in order to test changed reactions in the nerve and muscle.

Alterations in sensation are hardly ever absent in peripheral neuritis, although varying much in kind, in extent and intensity. Pain is an early symptom, but is much aggravated later, especially when the affection is due to alcohol. At times very sharp and quick, at other times burning and dull. It is located in the small nerve twigs, muscles and overlying skin. Along with pain, extreme tenderness is common—pressure over the course of the nerve, or squeezing the muscles, producing intense suffering. Paræsthesia, in the way of tinglings and formications, is quite common, and you seldom meet a case where some variety of anesthesia is not present to some extent. The reflexes suffer in all cases of polyneuritis, the knee jerk being lost early.

Another and important symptom is the implication of some of the visceral nerves, chiefly the pneumogastric, giving rise to a weak and quickened action of the heart.

Multiple neuritis has two modes of access, in the one class of cases, the onset is abrupt and rapid; in the other class, insidious, slow and chronic. In the acute cases, a slight chill and febrile reaction may occur, and the disease may be fully established in a few days. In the alcoholic cases, the acute form is usually attended with great pain, followed very quickly by paralysis. In those cases of gradual onset, the patients keep up for some time, the paresis passing into complete palsy very slowly, or only continuing as paresis for a few months and then recovery occurs.

I think I can better exemplify the varieties, the progress and termination of multiple neuritis by citing four cases from my note book:

Some fifteen years ago I was called to see a man in his thirty-seventh year. I was informed that he had drank freely and constantly for the previous ten years, and that twice before had

had a slight attack of his present trouble. He was a man of excellent natural constitution and had never had syphilis. He had then been confined to his room for two weeks and still drank a good deal. His pains in both upper and lower limbs were intense; was sleepless and ate scarcely anything. There was much tremor; his wrists were weak. He had some foot drop; paralysis not complete, and he could probably have walked but for the intense tenderness in the soles of his feet. There was some atrophy of the calves as well as the muscles of the fore arms. The several symptoms were evenly distributed. This case occurred when multiple neuritis was not fully understood, and therefore not treated as we would now. After watching the patient for a month, and no material improvement occurring, and finding it impossible to keep liquor from him, he was sent to a sanitarium in the East, where, after six months, he died.

The second is that of a gentleman about fifty-seven years of age. He possessed a good physique, with no organic disease, but inherited a decided neuropathic tendency. He had been a hard brain worker; never used stimulants or narcotics. During a hot day in April he sat in a little boat fishing for some hours, and then came up on the bank in the shade, and, being very tired, lay on the ground and took a long nap. The next day he began suffering in his limbs. He was cared for by a local physician, for rheumatism, for one month. Continuing to grow worse, he visited an Eastern city, where he was heavily dosed. He returned here on the 12th of June. When I saw him he had just arrived. His appearance gave evidence of serious illness. He was suffering very acutely in all his limbs. Had not slept for many nights. His arms and hands were so sensitive he would let no one touch them. He had wrist drop; had lost flesh. He had sores in his mouth and on the tonsils, so that he could not eat. He was barely able to walk on account of pain and soreness and general debility. On examination, I found that the pain and tenderness was not in the joints, but in the nerve trunks and the muscles. He had a temperature of 101 2-5; a quick pulse. The fauces were inflamed; ulcers on the tonsils and post-nares, and much edema of the uvula; this condition was supposed to be due to the mercury he had taken.

I recognized a clear case of multiple neuritis, and ascribed it to chilling while asleep on the bank of the mill pond in April previous.

Up to the 1st of July he showed very little improvement, although he had been on phenacetin, sodium bromide and sodium salicylate, as much as he could take, as swallowing was very painful. Temperature averaged 100, pulse 96. Between the 1st and 15th of July very marked improvement had taken place in every respect. Shortly after, however, he relapsed; fever increased, headaches were almost unbearable, ulcers appeared in the throat and mouth and were much like specific *plaque muqueuse*, and the condition was so bad that speech and swallowing were seriously interfered with. About the end of August it was learned that the patient had contracted syphilis a little more than a year previous, and had never had any systematic treatment. He was then placed on energetic mixed treatment—iunctions and iodide internally. Under this plan, in three weeks the improvement was evident; but the pain in the limbs and the tenderness on pressure were severe, and phenacetin had to be given pretty constantly. The specific treatment was pushed, reaching over 300 grains daily of iodide. During the month of October he was apparently well; could walk without assistance and returned to his business. On November 17th he was rather suddenly seized with dizziness and nausea; in a few hours slight ptosis of right lid developed, and, by the next day, paralysis of motor oculi, double vision, dilated pupil and very defective smell and taste. This condition culminated in two slight chills, followed by high temperature, with pneumonia developing in right lung. In a week he was better, and in three weeks eye symptoms disappeared.

After a temporary improvement, he was taken very ill in the latter part of December. From the extreme weakness of heart and rapid pulse and irregular respiration, it was inferred that the neuritis had attacked the pneumogastric nerve. Death seemed imminent for several days, but he rallied, and in a few weeks decided improvement set in. The remaining history of the case was one of ordinary syphilis of the nervous system, and need not be related further.

The third case is that of a negro man, thirty-five years of

age; married, no children; family history negative; no syphilis and no infectious disease since childhood; always had good health until present attack, and had constant employment in a large lumber yard; his habit for ten or fifteen years had been to consume one or two pints of whisky daily, but never got drunk or went on sprees.

I saw him in the spring of 1897. He had then been in bed a month. Complete paralysis of upper and lower extremities existed; could not turn himself over in bed; bladder and rectum normal; slight anesthesia in legs and conduction very slow, pains not severe, but worse at night; could not sleep without opiates; soreness and tenderness not very marked; knee jerk entirely wanting. The onset in this case was sudden weakness of muscles for a few days, and then complete paralysis; no head symptoms and mind rather cheerful; no complications from visceral lesions. The diagnosis, by the knowledge of the man's habits, was easily made. For twelve months he remained about one thing—perfectly helpless. After that there was some return of power in arms and lower limbs. When I last saw him, fifteen months after the advent of his attack, he was still in his rolling chair and had to be fed by the nurse.

The fourth and last case I wish to cite occurred six or eight months ago. A man of twenty-eight years, of fine physique and good family history; no syphilis; but who for eight or ten years had been a heavy drinker, without ever having been intoxicated. Was also an inveterate smoker. He first had a slight attack of amblyopia, and in two months another more decided one, and during this attack multiple neuritis developed. First, a weakness in the lower limbs, and in a few days this increased, so that twice, in attempting to walk, his knees gave away and he fell. He had very little pain, if any. After a few weeks, there was an increase of pain and tenderness in the legs, and in the right hand tingling was annoying; the radial nerve was very sensitive; both wrists were very weak, but never amounted to wrist drop; the knee jerk was about equally lost on both sides, and the legs were equally affected; no involvement of bladder and rectum. By the end of two months some atrophy was observed in the calf muscles; he became very nervous and sleepless at that time. Both tobacco and alcohol had been withdrawn from the outset.

The eyes improved rapidly. The neuritis symptoms remained stationary for a month after reaching their maximum, and then convalescence commenced and was rapid. Locomotion is not yet normal, but improving.

The first of these cases was a typical chronic alcoholic multiple neuritis, with probable visceral complications, the paresis being accompanied with great pain and extreme tenderness of the limbs.

The second was well marked and exceedingly grave, and was thought to be due to chilling, and would have been classed as rheumatic some years ago. Some authorities, however, at present deny the existence of rheumatic neuritis. In the light of the subsequent course of the case, and from the present standpoint of etiology, I think we must accept it as one caused by syphilis, the taking cold being the inducing cause.

The third case was clearly from abuse of alcohol, and was characterized specially by the preponderence of motor over sensory symptoms—extensive and long-continued paralysis with but slight suffering. This case was a negro.

The last case was recognized early in the attack. The use of alcohol was at once stopped, quiet and rest enforced, and rapid recovery took place.

Diagnosis: It is not often that serious difficulty presents in differentiating multiple neuritis. Occasionally it may be simulated by locomotor ataxia, poliomyelitis, multiple sclerosis, and hysteria. When sensory symptoms are very pronounced in neuritis, we may mistake it for tabes. The slower onset, the gait, the pupil changes, and the implications of urinary and genital organs will point to tabes. The pains in multiple neuritis are more constant and continuous; in tabes, at longer intervals and more intermittent.

Lastly, the consideration of the etiology is of great help. Even when a case of polyneuritis has syphilitic antecedents, we may be assisted by knowing that syphilitic polyneuritis is due to the direct primary action of the specific poison, while locomotor ataxia is a sequence—post-syphilitic. Anterior poliomyelitis may be mistaken for the paralysis of neuritis; but the entire absence of pain and other sensory disturbances, the recession of the paralysis, the age of the patient, and the probable etiological factors would correct any mistake.

To differentiate from hysteria, we have to remember that paralysis due to this state is seldom followed by atrophy, no pains accompany it, and the anaesthesia is very extensive, or of the segmental variety. The presence of mental and psychical stigmata will also decide in favor of hysteria.

Prognosis: The outlook in multiple neuritis is chiefly influenced by the nature of the cause, the intensity of its action, and the attending complications. Where the neuritis depends upon such disorders as diabetes, leprosy, and tuberculosis, a recovery can seldom be expected. In the forms arising from the abuse of alcohol, from diphtheritic and metallic poisons, a fatal termination is not usual, but may occur if the severity of the attack is great, or if an extension to the cardiac and respiratory nerves takes place; or, if in the first class (the alcoholic) there exist degenerative disease of the brain, liver or kidneys.

In many cases while life is spared absolute recovery does not occur; the patient may remain partially paralyzed, with contractions of some muscles, the balance of his life. In mild cases, in healthy individuals, restoration to health should take place in from four to eight months. Diphtheritic polyneuritis, if the pneumogastric is spared, is generally recovered from even earlier.

In the treatment of multiple neuritis we must start out by removing the exciting cause whenever this is possible. In cases where alcohol is responsible it is often difficult to restrain the patient's appetite, yet without a total withdrawal of the poison, the best conducted treatment will result in failure. In the cases of metallic poisoning, every care must be taken to remove the patient from the possibility of all further exposure.

The relief of pain is to be secured; first, by rest in a warm bed, even to the application of splints, to keep down muscular action. Warm baths, if the patient can be gently handled, are very comforting. The drugs that are first to be tried are phenacetin, antipyrin, the bromides and such like. Cocaine injected hypodermically over the painful nerves brings quick, although short, relief. Owing to danger of establishing a habit, morphine and other opiates must be used with care and caution. Sodium salicylate has been much employed, and so has the iodides, but it only is occasionally that benefit follows. In lead poisoning,

the iodide of potassium, alternating with sulphuric acid, are the standard remedies.

In alcoholic cases it is important to watch the kidneys, and suitable diuretics should be exhibited. When albuminous urine is present, Basham's mixture comes in well. In diphtheritic cases, it is important to watch the heart's action, giving alcohol and strychnine in large doses.

Selections.

THE OPERATIVE TREATMENT OF RETROFLEXION OF THE UTERUS — A recent monograph, entitled "Further Experience with the Operation for Retroflexion of the Uterus," by Mackenrodt, of Berlin, the originator of the vaginal fixation of the uterus, will be read with interest by those engaged in gynecologic work.

As is well known, Mackenrodt's experience, like that of most other operators, has led him to discard his operation as it was originally performed. He states, however, that the results of his operation both in his own experience and in that of others have been for the most part satisfactory, and he has always held to the belief that were it not for the difficulties in childbirth which have sometimes followed its performance, it would be the operation of choice for retroflexion. As a substitute for his original operation Mackenrodt has devised a procedure, the principal feature of which is the shortening of the broad ligament and utero-sacral ligament through the vagina. To accomplish this a bell-shaped denudation of the anterior wall of the vagina is made, the narrow end of the denudation being located over the prominence indicating the urethra, whilst the base of the bell includes the portio vaginalis, extending laterally into the vault of the vagina so as to expose the lateral ligaments. A stitch is then taken through the ligament close to the lateral border of the denudation, the suture is passed in front of the portio vaginalis and a stitch taken through the ligament of the opposite side. On drawing the ends of the suture the portio is

pushed back and the ligaments of both sides approach each other in the median line in front of it. Two or three such stitches only are needed. The portio is then pushed back with forceps, a strong catgut suture is passed through the anterior wall of the uterus and fastened in the anterior portion of the vaginal wound, and the vaginal wound closed in the median line.

The results of this operation are said to have been most gratifying, particularly in cases in which there was a tendency to prolapse. Vaginal fixation was not originally received with as much enthusiasm in this country as in certain parts of Europe, many of our leading gynecologists having obtained sufficiently satisfactory results from Kelly's method of ventrofixation or from Alexander's operation to make a change seem unnecessary. However, the ultimate conclusions with regard to a new procedure by so clever a surgeon as Mackenrodt will be received with consideration when they are reached.—*Philadelphia Medical Journal.*

TREATMENT OF ACUTE COLIC.—The *North American Practitioner* for September recommends the following for acute colic due to indiscretion in diet:

R Chloroform..... $1\frac{1}{2}$ drachms;
Deodorated tincture of opium..... 1 "
Camphor..... 4 grains;
Oil of cajeput..... 1 drachm;
Water..... 2 ounces;

M. One teaspoonful to be taken every hour or two.

IS THIS SO?—The *Medical Council* quotes the following from an unacknowledge source:

The severity of the Russian climate is the reason, perhaps, why nearly every Russian name ends with a koff.—*N. Y. Medical Journal.*

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

A VISIT TO THE LARGEST PHARMACEUTICAL ESTABLISHMENT IN THIS COUNTRY.—[The editor of the *North American Journal of Diagnosis and Practice*, C. H. Powell, M. D., of St. Louis, Mo., in his October issue, has the following, which, unsolicited, we reproduce.—*Ed. S. P.*]: In response to the kind invitation of Dr. C. B. Kirkland, the genial advertising manager of the well-known firm of Parke, Davis & Company, of Detroit, Mich., on the 30th of August last, I made a "day of it," calling at the main office in the morning and being conducted, in a state of continual astonishment, from one department to another till noon; in the afternoon making a special tour of the biological stables and the antitoxin plant.

It would be idle in me to attempt to give in detail the various processes that are daily carried on within the walls of this immense pharmaceutical manufacturing establishment. I can cover the ground best by the statement that from the gathering of the crude drugs to the packing of the finished product, ready for shipment to all parts of the world, the utmost care and vigilance seemed to be exercised by every one of the thousand employees engaged in the work of putting into effect the orders of the department chiefs. More than half of this great army of working people are women and girls. There were no girls doing men's work, but, as might have been predicated beforehand of a pharmaceutical laboratory, much of the work is of a kind requiring lightness and dexterity of touch, rather than severe application. One especially commendable feature, which I could not fail to notice, was the abundance of space, light and air afforded to the workers.

From this it follows that the laboratory must occupy a considerable area of ground. Facing on the river front, on what is known as Atwater street, the main office in the center, the buildings extend each way to the end of the square, a distance of about 600 feet, and back to Guion street (parallel with Atwater), a distance of about 250 feet, thus occupying the entire square, the open interior of which is devoted to a court-yard, reception lawn, etc. Besides this principal building, there are three or four others, the twin biological stables alone occupying an entire square, and affording accommodations for about 200 horses and a perfect menagerie of small animals;

while the repair shops, stockrooms and other buildings occupy the best part of a third square. So much for the vast extent of the works.

Parke, Davis & Company make it a special point to establish the exact chemical and physiological value of every preparation they put up. In addition to the analytical department, in charge of experienced chemists who apply to every fluid, solid and powdered extract the latest pharmacopœial or other tests practicable, a special department is devoted to the physiological standardization of such drugs as cannot be tested by chemical means. This department is presided over by expert bacteriologists, microscopists and all-round investigators. From the biological stables, which, by the way, are 300 yards away from the bacteriological department proper, such animals as frogs, cats and roosters are taken for the physiological testing of ergot, stramonium, strophanthus and other drugs that cannot be chemically assayed.

The bacteriological laboratory is a magnificent one, equipped with the most extensive and elaborate mechanism for the cultivation of specific bacteria and the production of toxins and anti-toxins. Dr. E. M. Houghton is one of the gentlemen in charge of this department. He is Professor of Pharmacology in the Detroit College of Medicine, and has largely contributed by his inventive genius and knowledge of microscopy to bring the instruments in use by his firm up to their present high state of perfection. I was treated with the utmost courtesy by the doctor, who kindly conducted me through his entire department and took the pains to explain to me the mechanism of many complicated machines under his charge.

Parke, Davis & Company have decided to add to their already extensive line of pharmaceuticals, glycerinated vaccine lymph. They have adopted the ingenious device of placing the cowpox virus in capillary glass tubes, about the thickness of a knitting needle, and sealed at both ends. Considerable trouble was at first experienced by the firm in filling these tiny tubes, the hypodermic needle being too large for the purpose; and the vaccine, once introduced into these containers, cannot be removed except by the aid of a rubber bulb, which is supplied with each package of tubes sent out.

From 3 o'clock in the afternoon until 6, I was most agreeably

entertained by inspecting the antitoxin department, which is entirely separate from the pharmaceutical laboratory proper. The horses are in the very pink of condition, liberally fed, well groomed, regularly exercised, and their stables scrubbed out thoroughly with lysol solution. Posted on the stable walls is the following program, which, I am assured, is rigidly adhered to:

DAILY ROUTINE FOR HORSES IN STABLES A AND B.

MORNING.

- 7:00 a. m. Temperature of all horses taken.
- 7:30 a. m. Water and feed hay and oats.
- 8:30 a. m. Stables cleaned and shavings sprinkled over stalls.
- 9:00 to 11:30 a. m. Clean horses.
- 11:30 a. m. Water and feed oats, and sweep stables before noon.

AFTERNOON.

- 1:00 p. m. Temperature of all horses taken.
- 1:30 p. m. Horses turned out for exercise, stables cleaned and stalls sprinkled with shavings.
- 3:00 to 4:00 p. m. Horses driven around paddocks for seven miles.
- 4:00 p. m. Horses returned to stalls.
- 4:30 p. m. Water and sweep up stables.
- 5:30 p. m. Each horse brushed off with a rubber.
- 5:00 to 6 p. m. Feed hay and oats, and bedding down.

Salt is given each horse once a week. Stables, stalls and floors are thoroughly scrubbed once a week.

The normal temperature of the horse is about 100°. When the diphtheritic toxin is injected in the neck, a moderate reaction usually follows, the temperature reaching 101°, rarely going higher; sometimes, however, it runs up to 103°, or even to 106°, but the prevalence of 101 upon all the charts struck me very forcibly. Dr. Houghton informed me that when the firm commenced manufacturing antitoxin almost 50 per cent. of their horses died from the injection, the usual form of death being paralysis. The animal would gradually grow weak in its legs, then the paralysis would involve the muscles of the neck, and the victim would fall, to rise no more. The customary treatment by strychnia, he assured me, was absolutely unavailing in the cure of this condition. He finally conceived the idea that the application of antitoxin from another horse might save the animals' lives as soon as this condition developed; accordingly he applied this principle, with the result of reducing the mortality to 8 per cent.

Any physician who will take the time and trouble to thoroughly inspect the methods followed by Parke, Davis & Company in the manufacture of anti-diphtheritic serum cannot but be convinced that whatever virtue resides in the antitoxic serum therapy may be confidently expected to make itself manifest from the employment of their product. The perfect health of the horses, assured by a veterinary surgeon who has had many years' experience in an official capacity as State Veterinarian; antiseptic precautions at every step of the process; the rigid testing upon guinea pigs to prove, in the first place, the strength of the diphteria toxin, and, in the second place, the antitoxic strength of the serum; the placing of the product in sterilized glass bulbs, which are immediately sealed so that all atmospheric contamination is absolutely excluded; the dating of each package of antitoxin before it leaves the shipping department, with the guarantee extended to all dealers that the serum is what it claims to be, and that any deterioration through age will be made good by fresh supplies—all these safeguards, especially when we remember that this work is in charge of a bacteriologist of national repute, Dr. Chas. T. McClintock, with whom are associated such expert pharmacologists as Dr. Houghton, and a small army of trained assistants, certainly leave no room to doubt that whatever bacteriological skill can do has been done to make Parke, Davis & Company's antitoxin an ideal product.

In conclusion, the writer has only words of praise for all that he saw while visiting this magnificent drug establishment. It is an American establishment, and supplies us with the very best product obtainable here or elsewhere. That it should receive our liberal patronage seems to me self-evident.

We would especially thank Dr. Kirkland for his hospitality and courtesies to one of our editors, and can assure him of the appreciation of the entire staff.

THE ORIGIN OF SPECTACLES.—Dr. E. P. Daviss (*South Western Medical Record*) says that it is to Charles II. of England that the world owes the discovery of lenses as an aid to vision. After his escape to France, and after his father was beheaded, he became a pensioner of the great Louis XIV, and

while living his indolent and dissolute life in Cologne he met an expert artisan in glass, and accidentally looking through a small lens belonging to this workman, he found that it greatly benefitted his very imperfect vision. He at once bought all his lenses and took the artisan in his own employ.

The young prince, born with myopic astigmatism (irregular near sight), by mathematical calculation based upon these crude lenses, thus accidentally discovered perfection in the glasses he is said to have worn, and by which his vision was raised from one-half of normal sight up to perfect vision. These glasses are now in the British Museum and were the first spectacles ever made for visual purposes.

When Charles was recalled to England and crowned Charles II. he took his French artisan and about twenty others with him, and it is said that as many as six thousand lenses were made before he got what he wished, and what finally gave him perfect vision. These glasses, when perfected, had cost the prince over £100,000.

The good, accidentally it would seem, that followed Charles' exile to France has been worth many times over to mankind the loss of his father's head, the fear of the same fate having been his incentive to flight. The Duke of Monmouth, Charles II.'s favorite son, also nearsighted, had but one eye, hence the origin of the "monocle." His father's artisans improved his vision with a single lens worn on the better eye.—*N. Y. Med. Jour.*

A BRAVE DEED.—Few readers are aware that our warships carry boiler makers who are often called upon to perform perilous repairs, and, in cases of emergency, these men go inside of the boiler or furnace, which but a few minutes before had been filled with boiling water or red-hot coal. There is no task too dangerous for these men to do. One of them undoubtedly saved the "Castine" from destruction in the harbor of San Juan. The "Castine" went into action under full speed. The furnaces were heated to the highest degree, forced draught being used. Without warning, a fierce hissing noise was heard inside one of the furnaces. A socket bolt in a back connection at the farthest interior extremity of the furnace had become loose, springing a

leak. The steam was pouring in upon the fire, threatening in a few minutes to put it out and stop the progress of the vessel, if it did not cause a terrific explosion. All in the boiler room knew that, unless this hole was stopped, disaster was at hand. One of the boiler makers, named Huntley, ordered the forced draught turned off and the fires banked. Taking a plank, he threw it into the furnace on the top of the wet, black coal with which the fire had been banked and then climbed far back to the place where the steam was rushing from the loosened socket. For three minutes he remained inside the furnace. His friends drew him out of the door; the forced draught was turned on, and in a few minutes the ship was proceeding on her way as though nothing had happened. In view of such deeds as this, there is little wonder that the engineering corps in our navy is receiving the highest praise on every side.—*Scientific American.*

THE SLIME ON FISHES.—A fish just taken from the water, if handled, says the New York Sun, is found to be slippery and coated with slime. All fishes, the meanest and the noblest, killi-fish and shark, shad, salmon and trout, wear this slime. They could not exist without it.

The slime is secreted usually in a continuous series of ducts with numerous openings, arranged in a line extending along the side of the fish. Some fishes have one line on a side, some have five or six. The lines may be plainly visible, and in some cases appear to be a marking on the fish. More often they are not observable at all. Some fishes store this secretion in pores distributed over the whole surface of the body, the larger number, however, in pores in lateral lines. There are also pores for the secretion of mucous or slime in a fish's head.

The slime is exuded through the divisions between the scales to the outer part of the body, over which it spreads, forming a sort of outer skin or covering, transparent, and having elasticity and tenacity, and often considerable body. It would not be remarkable for a fair-sized fish, say a fish of two pounds weight, to have a coat of slime a thirty-second of an inch in thickness. Fishes vary greatly in the amount of slime which they secrete; the eel will suggest itself as one that is very slimy.

The fish's slimy coating reduces its friction when in motion and helps to increase its speed. It aids in protecting the scales from injury, being of sufficient substance to serve in some measure as a cushion. The slimy covering makes the fish hard to hold, and so enables it the more readily to escape from its enemies. It is sometimes repugnant to other fishes, which are repelled by its odor. It is the slime from the fishes handled that makes the angler "smell fishy" as the expression goes.

A most important function of the fish's slimy coating is to protect it from the attacks of fungus, a form of plant life found in all waters, salt and fresh, including the purest. The slime covers the entire exterior surface of the fish, including the fins. Fungus does not attach to the slime; but if the fish were to be injured so that there was upon it some spot uncovered by the slime, upon that spot some minute fragment of fungus, so small as to be scarcely more than visible, would be likely to lodge. Once lodged, the fungus is reproduced very fast.

Fish sometimes recover from attacks of fungus, but much more often they do not. The fungus displaces the skin, inflammation is set up, and the place attacked becomes practically a sore. With its continued growth the fungus may cover the side of the fish and extend over the gills and finally kill it.—*Scientific American.*

RENAL HEMATURIA.—Hematuria may occur in disease of any portion of the genito-urinary tract. It is usually considered that the farther removed the lesion from the meatus, the more intimately mixed the blood and urine. When renal affections are causative, then we meet with the best type of an intimately mixed fluid of blood and urine. While local conditions of the kidneys, as stone, new growth, parasites, are responsible for many cases of what might be called renal hematuria, general pathologic systemic conditions must frequently be held to account. Such conditions as the latter occur in the various acute infections, in anemias, in the hemorrhagic diathesis. Putting aside for the present the consideration of the above causes, there still remains a large number occurring for the most part in chronic rheumatic affections, in gout and in arteroma.

This hematuria is explained by Musser as due to trauma. We know that in rheumatic disorders, in gout and in the various gastric and nervous complications attending these diseases urinary salts are excreted in excess. The excess of these salts explains the trauma on the grounds of mechanical irritation, and more or less blood appears in the urine. To be sure the hematuria thus resulting is, as a rule, microscopic, but is none the less a hematuria, and, it might be said here, the constant drain produced may partly account in not a few instances for the anemic condition observed in these diseases and especially in neurasthenic states. Musser, who has studied this question most closely, found in almost three thousand examinations of urine obtained from nearly two thousand patients, hematuria in 364 distinct individuals. "In 250 of the patients with hemorrhage the presence or absence of urinary salts was noted. Of these, in 90 uric acid alone was found; in 49 uric acid and other salts; in 17 oxalates alone; in 19 phosphates alone; in 4 oxalates and phosphates were found. In 71 it was stated there were no salts." He also states that the patients who were reported as without salts in their urine were afflicted with other disorders that readily explained the hematuria. In conclusion, one other point established by Musser must be noted: that in all the patients in whom renal stone was diagnosed (and in whom time showed the diagnosis to be correct), blood, though often microscopic, was an almost constant ingredient of the urine in all instances.—*Journal of Am. Med. Association.*

PREVENTION OF PHthisis.—The Council of Hygiene of Bucharest recently appointed a committee to prepare a handbook of advice as to the means of preventing phthisis. The committee has recommended, among other things, that persons suffering from the disease be excluded from workshops and placed in sanatoria, where they should be treated and maintained at the expense of the municipality. With the object of giving effect to this recommendation steps have already been taken to obtain buildings to be transformed into a sanitorium. A special medical inspector is also to be appointed, whose duty it shall be to discover cases of tuberculosis in workshops and factories.—*Medical Age.*

TONSILITIS.—Acute tonsilitis can be relieved in a few minutes and cured in a few days by the local application of muriated tincture of iron, diluted fifty per cent. with water. For children dilute further with water, about half of the strength of the above, or two parts of water to one of tincture of iron. Apply with a mop two, three, seldom four times in twenty-four hours. Very seldom will it require to be used more than two days. Many patients need some tonic in addition, as the system is usually debilitated by absorbing fecal matter, constipation being a feature of the complication. In fact, nature is making an effort to rid itself of poisonous matter through the general system, and the tonsils suffer.—*Medical Summary.*

FOR PRURITUS OF THE GENITALS:

| | | |
|---|-------------------------|------------|
| R | Menthol..... | 4 parts; |
| | Alcohol..... | 30 parts; |
| | Distilled water..... | 60 parts; |
| | Dilute acetic acid..... | 150 parts. |

M. To be applied locally.

—*Comston, in Philadelphia Med. Journal*

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION:
Postponement of the meeting until Dec. 6th, 7th, and 8th, which was to take place in Memphis Nov. 8th, 9th and 10th, has been ordered. Do not forget to bear the change in mind.

Editorial.

TWENTY-FOURTH ANNUAL MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Held in Nashville, Tenn. Oct. 11, 12, 13, and 14., 1898.

FIRST DAY—MORNING SESSION, THURSDAY.

The Association met in the hall of the House of Representatives at

the state capitol, and was called to order by the chairman of the committee of arrangements Dr. Duncan Eve.

Divine blessing was invoked by Rev. James I. Vance, D. D.

Addresses of welcome were delivered by Hon. J. M. Head, on behalf of the city and State, and Dr. C. S. Briggs, on behalf of the local profession.

After the reading of the report of the secretary and treasurer, which were adopted, the president's address was delivered by Dr. John Young Brown, of St. Louis, Mo. He selected for his subject "The Mississippi Valley Association," dealing with its history and saying that it was organized twenty-four years ago. The rapid growth of the Association is due to the loyalty of its members and to the fact that from its inception it has been a distinctively working body. Suggestions were offered for its improvements. The president recommended that the annual dues be raised from \$3 to \$5, inasmuch as the Association contemplates the publication of an annual volume of transactions.

At the conclusion of the president's address the scientific programme was taken up. The first paper was read by Dr. Charles T. McClintock, of Detroit, Mich., entitled "*Immunity.*"

Of late years a large part of the laboratory work in medicine has had to do with immunity. Many facts have been discovered; in a few instances these have been of immediate practical value in the treatment or prevention of diseases. But for the most part, these facts are uncorrelated, often contradictory, their meaning not clear. Hypotheses have been advanced, but as yet we have no theory that will even approximately explain the facts of immunity. The future of work in this line is full of promise. For the infectious diseases, at least, immunity and cure are one and the same. A diphtheria patient will be cured only when its tissues are immunized against the attack of the diphtheria poison. There are several kinds and various degrees of immunity. We have a natural and an artificial or acquired immunity; apparently these are entirely different in kind, dependent on different functions of the body, effected by different substances. There is racial immunity. Again, we have an immunity correlated with age. Variations in susceptibility are noted in different varieties of the same species and even in different families. Again, there is an individual immunity. Still again, one part of the body, even one portion of the same tissue, may be immune, while the rest is very susceptible. These facts are not to be explained by general resistance, good health, etc. The most vigorous man may acquire smallpox or influenza. The healthiest cow is likely to take pleuropneumonia.

To what extent an acquired immunity can be inherited is both an interesting and important question. This sort of immunity is usually lost, at least so far as our tests will show before the animal reaches the adult stage. This inherited immunity is not the same as the immunity of the suckling. This is due to the fact that the immunizing bodies pass into the milk. The child receives from its mother not only food, but disease-resisting power.

We have active and passive forms of acquired immunity. The horse

producing antitoxin is actively immune. His tissues are producing antitoxin. The child receiving a dose of antitoxin is passively immune. It has borrowed the strength of the horse.

There is an immunity to poisons. The wolf thrives on putrid flesh. Some animals are immune to snake poison. The insusceptibility of the morphine user may be something more than mere tolerance. The drug may be in part destroyed, and this anti-power may have to do with the craving for the drug. There is no antitoxin, but, in short, an immunizing body.

Dr. George W. Johnson of Dunning, Illinois, has had some experience with nucleinic acid in the treatment of pulmonary tuberculosis in cases of mixed infection. He has noticed a diminution in the number of pyogenic bacteria, and asks whether the phagocyte attacks the tubercle bacillus the same as it does pyogenic bacteria.

Dr. M'Clintock replied that he knows of no reliable investigations that have been made with reference to that point.

Dr. Ernest B. Sangree, of Nashville, said it is believed by many investigators that the phagocytes eat live tubercle bacilli, and that cases in which tubercle bacilli are included in the phagocytes have a better chance to get well than those which do not contain them.

Dr. Dudley S. Reynolds, of Louisville, is afraid that experimental observers have failed to note the necessary equilibrium between the circulating blood current and the lymph stream. Dr. Reynolds elaborated the theory of phagocytosis and showed how phagocytosis can never be successful if obstructions exist in the lymph channels.

Hygiene vs. drugs in the treatment of pulmonary tuberculosis.—A paper on this subject was read by Dr. C. L. Miner, of Asheville, N. C. Under hygienic and dietetic treatment the author embraces all such non-medicinal measures as are directed towards an increase in the vitality of the organism and of its resistance to disease, and remarks that climate-therapy is but a branch of hygienic treatment, although he does not embrace it in his remarks which are confined to the proper application to individual cases of exercise, gymnastics, massage, hydrotherapy, rest, sleep, diet, amusements, clothing, and quarters. A partial and unsatisfactory use of such measures is more or less general, but unless directions be definite and specific, they will fail of their purpose.

The very common abuse of exercise was deplored, and the invariable rule stated "exercise short of the point of fatigue," and the other of no exercise with a temperature over 100.4 degrees, following which no mistake can be made. The thing to be attacked is not so much the lesion in the lung directly as the lowered vitality of the body, the diminished capacity of the lungs, and the deficiency of appetite; and drugs directed to a conquering of the bacillus *in situ* are not to be compared with measures which enable the organism itself to acquire the strength to overcome disease. These things can be brought about best by an improvement in nutrition, which must after all come from the stomach, and an increase of the amount of oxygen taken into the lung.

Congenital Scoliosis.—Dr. S. C. Baldwin, of Salt Lake City, Utah, read a paper on this subject. Scoliosis is, first the most common of all deformities. Second, it is most often found in children under ten, rarely beginning after eighteen. Third, it is found more often in girls in the ratio of five to one. Fourth, the etiology is in a large number of cases very uncertain. Congenital scoliosis is very rare. Tubley, of London, in the latest English work on deformities, says that he has been able only to verify four cases.

The case reported by the essayist was first diagnosed as scoliosis when the child was twenty-one months old, but the father had noticed the "lump," ever since the child was first washed. The interesting features of the case are that the curvature is in the lower cervical and upper dorsal regions. There is some pressure on the cord, as shown by the more or less deficient development of the right side. The convexity of the curve in this case is to the left. There is partial paralysis of the fore finger of the right hand. There is sweating and flushing of the left side with none on the right.

The cause of the scoliosis in this case is thought to be the lack of amniotic fluid while in utero, probably allowing the muscular walls of the uterus to press on the fetus and hold it in a faulty position, and in this way cause a wedge-shaped development of the bodies of the vertebrae. This theory has been advanced by Weissenberg, Hirsh, and Schaus in the last year. In this case the mother was very small, and passed at the time of confinement so little water that she did not know there was any, and felt no motion comparatively during pregnancy.

Dr. Samuel G. Milliken, of Dallas, Tex., has seen one case of scoliosis in a child under one year of age, but he is not prepared to say whether it is congenital or not.

FIRST DAY—AFTERNOON SESSION.

Dr. William Baum, of Chicago, read a paper on *The Therapeutic Value of Marmorek's Serum*. Twenty-two cases have come under his observation in which the serum was used. Of these nineteen were erysipelas, one of erysipelas plus tubercular nuchal glands, one of facial erysipelas during child-bed without septicemia, and one of erysipelas with puerperal septicemia and double labial abscess. The last was the only fatal case. The serum used was supplied by Parke, Davis & Co.

The deductions he draws from an analysis of the literature and his own experience are:

1. In pure streptococcal infections the serum undoubtedly exercises a favorable influence on the course of the disease.
2. In the mixed infections the influence of the serum is noticeably demonstrable, but it merits further trial as an adjunct to other treatment.
3. Considering the grave character of the complications of a non-streptococcal nature reported, ordinary rules of therapeutics demand that in such cases, as with the diphtheria antitoxin, all indicated therapeutic procedures must be employed as well as the serum.

4. In view of the fact that *erysipelas streptococci* and phagocytes have been found to exist side by side in the lymph channels, it is fair to assume that the influence of the serum is directly exerted bacteriologically on the streptococci and not entirely through a stimulation of phagocytic action.

5. The initial dose in all cases should be 20 c. c., to be followed by 10 or 15 c. c., according to the indications, every twenty-four hours.

Dr. Charles L. Minor said his experience is practically confined to secondary infections in tuberculosis. He has used the serum of Parke, Davis & Co., with considerable satisfaction, and prefers it to Marmorek's.

Dr. Samuel E. Milliken has used anti-streptococcic serum in two cases, both of which terminated fatally. One was a case of abscess of the liver, the other a suppurative appendicitis.

Dr. William K. Jaques, of Chicago, called attention to infections in the pulmonary tract that he has found to be purely streptococcic, and in such cases he has advised injections of anti-streptococcic serum with good results.

Dr. Baum, in closing, emphasized the importance of diagnosing the kind of infection present.

Dr. Albert Bernheim, of Paducah, Ky., presented a paper and reported *Three cases of syphilis in which he administered blue ointment by the mouth*, with satisfactory results. He urges a thorough trial of this method.

Dr. James T. Whittaker, of Cincinnati, delivered the address on medicine. He selected for his subject DIABETES MELLITUS.

With graceful and eloquent delivery *ex tempore*, in a masterly way, this eminent clinician and teacher from the Queen City of the West, gave a brief history of the discovery of the disease, its pathology so far as known, its etiology and treatment. To attempt to make an abstract of it is an effort we cannot contemplate, and shall await with great interest its appearance in the transactions. Its merits demand full and careful perusal.

Dr. Andrew Timberman, of Columbus, O., followed with a paper, entitled, *Mastoiditis, when to operate and how?* The causes and symptoms of this affection were described. He divides cases of mastoiditis into two classes—the first comprising those complicating acute aural diseases; the second class, those complicating chronic aural affections. This division ignores primary mastoiditis, which is very infrequent.

Conclusions: Operative measures should be instituted.

1. To preserve the function of hearing as well as to prevent a fatal issue.

2. Earlier in mastoiditis due to scarlet fever, diphtheria, and the worst cases of influenza, than when due to colds, measles, typhoid fever, etc.

3. In the acute cases of mild infection, when subsidence does not occur within, at most, eight days. (Schwartz.) A shorter period is safer in a virulent infection.

4. Recurrent mastoiditis due to any cause.
5. In mastoiditis complicating a chronic suppurative otitis.
6. In acute cases where there is a drooping of the lining membrane of the supero-posterior wall of the external auditory canal, carrying with it the membrane Shrapnelli; in chronic cases when at the same place a crater-like opening leads to the recessus epitympanicus and aditus ad antrum, even though in neither case symptoms immediately menacing life be present.

The author favors the typical or original Schwartze method of opening the mastoid antrum. Its success in given conditions justifies its application; its failure in given conditions has resulted in a more perfect procedure styled the Schwartze-Stacke, or radical operation.

Dr. J. Homer Coulter, of Chicago, maintains that the general practitioner should not treat cases of mastoiditis in which the symptoms are well defined, and no one who has not had considerable surgical experience should attempt the Schwartze operation.

Dr. J. A. Stucky, of Lexington, Ky., said that in many cases of necrosis of the malleus he has made a free incision along the posterior superior wall of the canal, curetted the diseased bone away, tamponned the canal lightly with iodoform gauze, and patients have done well without undergoing the radical operation.

Dr. Dudley S. Reynolds laid stress on the importance of instituting constitutional medication in the stage of invasion in cases of mastoiditis, saying that an ounce of prevention at this period is most precious bestowed.

Dr. L. B. Graddy, of Nashville, called attention to a point not mentioned in the paper—the differential diagnosis between mastoiditis and mastoid periostitis. If cases are carefully observed there is as much difference between the two conditions as there is between a periostitis of the tibia and an epiphysitis. This differentiation is of paramount importance in the treatment, whether it be medical or surgical.

Prophylaxis in Nose and Throat Diseases.—Dr. J. Homer Coulter, of Chicago, read a paper on this subject, in which he advanced the following conclusions: Anything which produces an alteration in the normal physiological metabolism of the mucous membrane of the nose and throat; any alteration in the nutrition of the parts; any abnormal variation in functional activity; any considerable change in the histological anatomy are each and all remedial surgically or otherwise, and are, therefore, amenable to prophylactic efforts.

Dr. J. A. Stucky, of Lexington, followed with a paper entitled *Peritonsillitis, or, Quinsy; Cause and Treatment.*

Of ten authors consulted, seven, after citing hereditary predisposition, exposure, etc., mention rheumatism and gout as the most prolific causes of this malady. Close observation and careful testing in selected cases convince him that the rheumatic, or, more probably, the uric acid diathesis, has more to do with the causation of this disease than any other factor.

Coming to the treatment, he believes if the majority of cases of quinsy are seen within forty-eight hours after the first onset of the disease, they can be aborted to such an extent that suppuration will not take place. In cases that progress to suppuration, he strongly advocates early and free puncture, just as soon as there is marked distention, in order to relieve pain and stop the destructive suppurative process. For this purpose he uses a modification of an ear spoon, first described by Spier, and not a knife.

SECOND DAY—MORNING SESSION.

Dr. Thomas Charles Martin, of Cleveland, Ohio, read a paper entitled, *Complete Inspection of the Rectum by Means of Newer Mechanical Appliances.*

Dr. John L. Jelks, of Memphis, Tenn., contributed a paper on *The Relation Between the Genito-urinary Tract and Rectum; In Operations Upon the Female, Which Should Receive Priority?*

The author champions the assertion that the gynecologist should be as well prepared to remove hemorrhoids and treat an ulcerated rectum as to dissect a cicatrix from the cervix or repair a perineum. The rectal surgeon often finds that, although the rectum is involved to such an extent as to be chiefly complained of, the chief source of danger to the patient is a pus tube or some other disease. In other words, to relieve the patient and restore her to health and happiness he must also dissect from the cervix uteri a cicatrix and repair a lacerated perineum. In another case he may be required to sever an urethral stricture.

Dr. William B. Burns, of Deckerville, Ark., read a paper entitled, *Rectal Fistula in the Causation of Ischio-rectal Abscess*, in which he reported a case containing two large pus pockets. He opened the abscess, emptied its cavity and subsequently did an operation for the removal of the fistula.

Dr. George D. Kahlo, of Indianapolis, followed with a contribution on *Hydrotherapy in Stomach Diseases.*

He said that water is essential to the performance of all physiological functions; yet its importance as a remedial agent is not so generally recognized. To be successful, hydrotherapy, like all other forms of treatment, has for its governing factors an exact diagnosis, a thorough knowledge of the patient, a full understanding of the causative influence, and a clear conception of the effects of the remedial agent. To this must be added the confidence and co-operation of the patient.

SECOND DAY—AFTERNOON SESSION.

Dr. Thomas Hunt Stucky, of Louisville, read a paper on *Auto-intoxication of Intestinal Origin.*

Dr. Edwin F. Wilson, of Columbus, Ohio, followed with a *Clinical Report of a Case of Abscess of the Liver.* In speaking of the clinical aspects of abscess of the liver, he called attention to the essentials in diagnosis, and dwelt upon the history of the disease. He reported three cases. Of these, the diagnosis was confirmed in two by post-mortem; in the other,

by aspiration. In all three the abscesses were chronic when the patient came under his observation. In only one of the cases was there a history of dysentery, although in one case scars of healed ulcers were found in the large intestine. In these cases he finds the enlargement of the liver is upward.

Dr. J. C. Morfit, of St. Louis, read a paper on *The Importance of Early Diagnosis in Surgical Cases*. The diagnosis of a disease ought to be the most attractive feature in the practice of medicine or surgery. It is the foundation on which any plan of treatment is applied. The physician should promptly and exhaustively weigh every indication of cause and effect and apply his therapy accordingly. He has recently seen two cases of pyosalpinx which were cured by surgical interference. Both had been treated by good practitioners, yet neither had made a complete physical examination, and consequently the real trouble was not detected. One was treated for indefinite inflammation of the bowels, the other for malaria.

Dr. George W. Johnson, of Dunning, Ill., read an excellent paper, entitled, *Gonangectomy and Orchidectomy for Hypertrophied Prostate in the Aged*, in which he reported five cases, and made a second report on twenty-eight cases previously recorded. At the outset, the author referred to the celebrated paper of J. William White, entitled, "The Present Position of the Surgery of the Hypertrophied Prostate," read before the American Surgical Association in 1893, and to other contributions found in current medical literature. From the cases reported in literature he was led to undertake treatment by this method a little more than a year ago. He had familiarized himself with all the different methods of examining patients, as well as with the surgical and medical methods of treatment, and he had done the work as thoroughly and systematically as possible to determine further the real efficacy of orchidectomy and gonangectomy in the treatment of senile hypertrophied prostate. Of the twenty-eight cases, twenty-six may be said to be perfectly cured. They have not had any more trouble with their urine, and are in good health. Of the other two, one has had retention once since operation; the other, which was a case of bilateral gonangectomy, has enuresis at night once in a great while, and goes to the urinal more than the normal number of times during the day. This, however, is the case he had previously reported as suffering from senile dementia. Mentally, his condition is unchanged. The deep silk sutures have been removed from three cases through a sinus opening after having been in place about one year. The gastro-enteric trouble, which is almost universally present in these cases, and which is so often found as a sequel of chronic prostatic troubles, has disappeared in every instance. No deaths have occurred among the twenty cases. Of this number, one of which was extremely asthenic at the beginning of treatment, with chronic prostatitis and cystitis, complicated by enormous hernia of many years' duration, it may be stated that the surgical treatment in every case has been a complete success and beyond the most sanguine expectations.

THIRD DAY—MORNING SESSION.

Dr. George Ben Johnson, of Richmond, Va., delivered the address on surgery. His subject was THE PROGRESS OF RENAL SURGERY, which, he said, is altogether a matter of the past three decades, having had its commencement with the successful nephrectomy performed by Simon in 1869. Dr. Johnson dealt with nephrotomy, floating and movable kidney, renal and ureteral calculi, neoplasms of the kidney, tuberculosis of the kidney, which, when not a part of the general miliary tuberculosis, may either have its origin in the kidney or may be an ascending affection from the bladder. Hydronephrosis also received attention. He made no attempt to arrive with anything approaching completeness at the progress or present status of surgery of the kidney. He has endeavored merely to point out some of the advances which have been made in this field of surgery, and to indicate the present view of surgeons upon some of the most important points. Especially did he emphasize the conservatism which has developed along this line, and which now marks the attitude of the surgeon in this and other branches—a conservatism which realizes that the glory of surgery is not in amputation and in mutilation, but in saving important organs.

Why I Perform Vaginal Ablation in Pelvic Inflammatory Cases, by Dr. William R. Pryor, of New York City. Up to October the first of this year he has performed vaginal hysterectomy for pelvic inflammatory lesions, exclusive of fibroids and cancers, eighty times. Since that time he has made the operation a number of times. No case has died either from the operation or complications. He has no fecal fistula to report, no sinuses, no vesico-vaginal fistulae and no hernias. There have been no cases of phlebitis and no intestinal obstructions. The vagina has in no case been shortened. For the technique of the operation he refers the reader to the *American Journal of Obstetrics*, volume 36, No. 6, 1898.

Dr. Shelby C. Carson, of Greensboro, Ala., read a paper entitled, *A Consideration of the Limit to Operative Gynecology*. He emphasized the importance of medical gynecology; he showed that surgery cannot advance a legitimate claim to even the larger portion of this great field. What constitutes true surgery was then discussed, the author quoting not only from text-books, but from the latest utterances of eminent surgeons, proving that surgery, of all other branches, is based upon principles, and hedged in by fixed laws, and that when these are disregarded there is no true surgery.

The Therapeutic Value of Leaving Large Quantities of Normal Salt Solution in the Abdomen. Dr. J. Wesley Bovee, of Washington, D. C., read this paper, in which he read six cases to illustrate the usefulness of this procedure. The marked stimulating effect of the remedy on the kidneys is noticeable in all the cases. Penrose has found that the amount of urine excreted during the first twenty-four hours after operation in one hundred cases was 13.4 ounces; for the second, 14.6 ounces, and for the third, 19.8 ounces. He also found that for the first day the maximum amount of urine was 27 ounces. In many of the cases of the essayist this maximum

was much more than doubled. While the number of cases in which he has used these large quantities of normal salt solution is small, the effect should encourage a further application of the remedy in proper cases. Not one evil solution of the result was observed in any of the cases.

Dr. F. F. Bryan, of Georgetown, Ky., read a paper entitled, *A Plea for Pelvic Cellulitis and Peritonitis*.

He reported twenty cases, and drew the following conclusions:

1. Cellulitis and peritonitis are important manifestations leading to the greatest amount of suffering that woman is heir to.
2. Their recognition and the retention of their nomenclature should keep physicians constantly on the watch for them.
3. Their proper treatment in the early stages will obviate these latter evils to a great extent, as cellulitis and peritonitis are easily curable in the early acute stages.
4. That should opportunity for an early cure not be offered, then the chronic cases should have the medical and minor gynecological treatment mentioned by him, under which many will be cured. Others obtain relief, and a respectable quota will of necessity have to return to surgery for their cure.

THIRD DAY—AFTERNOON SESSION.

Dr. Alex. C. Wiener, of Chicago, read a paper on *The Surgical Treatment of Paralysis in Children*.

He said a clear distinction should be made in diagnosis as well as treatment between cerebral and spinal paralysis. A common symptom in both diseases is paralysis, and yet there is a great difference between the two. In spastic paralysis one group of muscles becomes rigid and overpowers its opponents, rendering them overstretched and useless, but still their innervation is by no means disturbed. In spinal paralysis there is a true degeneration of the lower neuron and the dependent muscular groups. This being borne in mind, the treatment is to equalize the balance between the spastic and the overstretched muscular group by lengthening the rigid muscles. This is done either by tenotomy, resection of tendons, or loosening the attachments of the muscles from the bone, as is done in a spastic condition of the adductor muscles of the pelvis. The after-treatment consists mainly in not allowing the extremity to leave its over-corrected position too soon, and in strengthening the functionally weakened opponents by massage, baths and electricity. Apparatus in these cases are utterly useless and should be entirely discarded. Any other peripheral cause of reflex irritation, as phimosis, adhesion of the prepuce, or of the clitoris, is to be removed. In anterior poliomyelitis we have to deal with a true paralysis of certain muscular groups. This may be overcome by apparatus which supplant the paralyzed muscles, or by operative procedures. Operative measures consist in dividing the belly of an active muscle up to the place of its insertion and sewing the corresponding part of the tendon into the cleft of the tendon which belongs to the paralyzed muscle. The inactive muscle is supplied with the

vigor of the innervated muscle, taking care, as Miliken has pointed out, that the sheath of the tendon is preserved. By this artificial change in the arrangement of muscles the function of one muscle is transmitted to another. There is taking place an alteration of the reflex activity in the nerve centers of the muscles; hence the importance of the function of the extremity is by no means a mere mechanical act.

The Diagnosis of Gonorrhœa in Women, by Dr. Joseph R. Eastman, of Indianapolis. The diagnosis of this affection in women is comparatively easy, even without the microscope. It will be concluded after many examinations for gonococci, that the urethra is the seat of predilection of gonorrhœa in women, and that the vulvitis and vaginitis are secondary, being caused by the bathing of these parts with the discharge from the urethra and cervix. The diagnosis of acute gonorrhœa may be made by contemplation of the clinical phenomena alone. For example, if acute urethritis be present it is almost certain that the gonococcus is to blame. Observation for a few days will establish the diagnosis beyond conjecture, since the symptoms of non-specific urethritis will disappear rapidly.

Dr. A. M. Cartledge, of Louisville, contributed a paper on *Posterior Displacements of the Uterus*. He dealt with the subject from a clinical standpoint. He discussed the causes, symptoms and diagnosis of these displacements.

Treatment should be divided into measures which correct the cause and methods of support by suturing, and shortening the round ligaments. Sometimes it is necessary to employ both methods in the same individual in order to make the result durable. In the first category are to be included thorough curettage; repair of cervical lacerations, if present; perineorrhaphy and restoration of the pelvic floor; tonics, laxatives and rest. These methods, if carried out successfully, will ultimately relieve the vast majority of posterior displacements.

As between ventro-fixation, vagino-fixation, and Alexander's operation, preference should be given the latter, if no accompanying disease is suspected. Where such disease exists, the operation of ventro-fixation should be practiced, as it gives opportunity for inspection and correction of the pelvic disease. It is the best operation in all cases of adherent uteri.

Some Cases of Intestinal Obstruction. Dr. A. H. Cordier, of Kansas City, Mo., read an excellent paper on this subject. He said the causes of this condition are many and varied. Modern methods of diagnosis in skilled hands have led to the saving of many lives, which heretofore would have been lost by delay in resorting to the proper treatment. While the diagnosis of intestinal obstruction can usually be made early, there are some cases in which the pathological manifestations are so insidious or vague that their detection requires time and much careful clinical analysis. The symptoms of intestinal obstruction were thoroughly outlined. He said the falsehoods uttered by pain and the truths untold by opium have been very expensive to human life in the management of this condition.

Surgical treatment for the relief of intestinal obstruction should be resorted to early. It should be thorough and quick. No protracted delays or chronic surgery should enter into the management of an acute intestinal strangulation, as these cases stand prolonged anesthesia and slow surgery badly.

Dr. F. F. Lawrence, of Columbus, Ohio, read a paper in which he dwelt upon the *Essentials to Success in Abdominal Surgery*.

Dr. Bayard Homes, of Chicago, read a very interesting paper on *The Surgical Treatment of Exophthalmic Goitre*. The surgical treatment is based on the theory that in this disease the direct morbid factor is an increase in the normal excretion of the thyroid gland. He gave a synopsis of the physiology and pathology and an outline of the embryology of the thyroid, after which he reported in detail an instructive case upon which he had operated, it being a very powerful argument in favor of surgery in dealing with this affection.

Dr. J. S. Nowlin, of Shelbyville, Tenn., discussed *Some Forms of Gangrene and their Treatment*.

He said that gangrene means death of a part, and is applied to the soft tissues. The blood is always involved in this condition. If the blood is performing its functions there can be no local death. The blood-channels being destroyed, gangrene necessarily follows. Gangrene appears sometimes suddenly after injuries to the spinal cord. Normal functional activity in the blood prevents the first step in the process of inflammation. Simple endarteritis may be the cause of gangrene; an inflamed artery is then surcharged with blood, stasis results, coagulation takes place, the lumen is destroyed to a certain extent, and gangrene results. Sepsis is doubtless a most frequent cause of gangrene in the extremities. In traumatic gangrene the surgeon should look out for sepsis. If there be a simple endarteritis, with tissue-formation, amputation should be performed at the first evidence of failing vitality.

FOURTH DAY—MORNING SESSION.

Dr. A. M. Osness, of Dayton, Ohio, read a paper entitled *Diphtheria and its Logical Treatment*.

The pathological process in diphtheria is caused by the serum albumin at the point of infection becoming moderated from incorporation with the specific virus. It is then repudiated by the blood stream and exudes into the neighboring tissues, where it, plus necrotic cells and fibrin, forms the pseudo-membrane, which is a congenial nidus for the Klebs-Loeffler bacillus. The intoxication of the system depends upon the energy of the lymphatics upon which devolves the removal of the exudate. The writer undervalues the treatment of diphtheria with antitoxin.

Dr. William K. Jaques, of Chicago, followed with a paper on *the Early Diagnosis of Diphtheria*.

He said that outside of laryngeal complications, the mortality from diphtheria is due to the toxin produced by the Klebs-Loeffler bacilli. No physician can successfully treat diphtheria unless he understands the na-

ture of this toxin, how it is produced, and how the cells may be fortified against its destructive action. To appreciate the danger of his patient, a physician must understand the rapidity with which these bacilli multiply under favorable conditions. The clinical symptoms manifesting their residence may give no indication as to the rapidity with which the fatal amount of toxin is being produced. Understanding that toxin is a product of these germs, their multiplication means an increased amount of toxin which soon reaches the fatal point unless checked by the use of antitoxin. This demonstrates the importance of a physician knowing at the earliest possible moment what germs are present in an angina. The essayist described a culture outfit for the use of physicians.

When an antiseptic treatment has been administered before the culture is taken, and the disease manifests malignancy by stupor, hoarseness or swelling of the cervical glands, it has been possible in about fifty per cent. of the cases to find sufficient bacilli to warrant a diagnosis of diphtheria even before any trace of membrane is visible. When it has been possible to get a small portion of membrane to spread on the slide, there has been no difficulty whatever in about seventy-five per cent. of the cases in making a direct diagnosis.

In the malignant form of diphtheria nearly fifty per cent. of the cases die unless proper treatment is administered. Any physician who neglects to make a correct diagnosis during the time when the remedy is efficacious—that is, during the first two or three days—is responsible for the result.

The technique of bacterial diagnosis of diphtheria is simple. The entire outfit for this work may be obtained for less than \$100. The essentials may be acquired at home by any physician who is willing to devote no more than his leisure moments to it.

Dr. H. W. Whitaker, of Columbus, Ohio, read a paper on *Pichi*.

In Chili, South America, *Pichi* is found growing as a shrub in abundance. No doubt the active principle of the drug resides in the balsamic resin, but chemical examinations have so far been unsatisfactory in determining its chemical composition. The annoying symptoms of chronic cystitis with enlarged prostate yield to the action of *pichi*, as was illustrated by the report of a case. This remedy is indicated in all of the various forms of diseases of the liver. In gall stones it has proven a valuable agent in assisting the secretion of bile, and theoretically aiding the discharge of the stones. Uric acid formations rapidly disappear from the urine under the corrective influence of the remedy and the general condition of the patient improves.

Dr. J. Henry Carstens, of Detroit, reported a case of *Rupture of the body of the uterus during confinement*.

A few practical points in the treatment of Posterior Urethritis.—This paper was read by Dr. A. Ravagli, of Cincinnati, Ohio. The author recapitulated the principles of the treatment for this disease as (1) irrigations with the Janet method in a recent case of gonorrhea will in many cases prevent posterior urethritis. (2) Irrigations with the recurrent catheter

with permanganate of potassium, followed by injections of protargol, 'will cure in a relatively short time a case of subacute posterior urethritis without complications. (3) When chronic posterior urethritis lasts for a long time, and has caused infiltration of the submucous tissues, then the application of a sound with ichthyol salve gives the best results.

Dr. F. E. Kelly, of Lamotte, Ill., read a paper on *Varicocele*. The author outlined the operation for radical cure and the indications for its performance. He considers Bennett's operation of resection of the veins and shortening of the spermatic cord the ideal radical procedure, which he described in detail.

Dr. R. A. Bate, of Louisville, read a paper entitled *The Arthritic Diathesis*. The term diathesis is applied to an inherited predisposition to altered nutrition. He assumed in diathesis an inability on the part of the cells to produce oxidation. He mentioned the diseases generally conceded to be dependent upon the arthritic diathesis. He has experienced favorable results from anti-lithemic remedies in glycosuria, nasal and bronchial asthma, lithiasis, albuminuria, obesity, eczema, paresis, rheumatism, angina pectoris, recurrent typhlitis, vertigo, biliaryness, dyspepsia, neuralgia, and migraine.

Dr. Albert E. Sterne, of Indianapolis, contributed a paper entitled *A Trilogy of Diseases: Acute Articular Rheumatism, Endocarditis and Chorea*. He advanced considerations concerning the nature of these three afflictions and of the connection of chorea with manifestly infectious disease, namely, acute articular rheumatism.

The following preamble and resolutions offered by Dr. Arch. Dixon, of Henderson, Ky., were unanimously adopted:

Whereas, The general public, the medical profession and the drug trade of the United States have long suffered extortion at the hands of foreign manufacturers of synthetic remedies, and

Whereas, Our lax and indulgent patent laws bestow a triple monopoly upon the process, the composition and the name of chemical products for medicinal use, thus excluding every possibility of a healthy competition; and

Whereas, The same evil has been recently disclosed in the domain of biological medicine by the patent granted Professor Emil Behring and the Hoechst-Farbwerke on anti-diphtheritic serum, a patent which could not be obtained in Germany, France, England or Canada; therefore

Be it resolved by the Mississippi Valley Medical Association, That the seal of its condemnation be placed upon the unethical and unprofessional conduct of Professor Behring; that it is the duty of every member to renounce the use of the Behring serum; and that the American manufacturers who propose contesting the patent in the courts are entitled to the moral and substantial support of every American practitioner;

Resolved, That an earnest appeal be made to the members of the commission on the revision of our patent and trade-mark laws, appointed by President McKinley, and their assistance invoked for the modification of existing laws and the suppression of prevailing abuses;

Resolved, That a copy of these resolutions be sent to every medical journal in the United States and to the members of said commission, as follows: Hon. Arthur P. Greeley, Assistant Commissioner of Patents, Washington, D. C.; Hon. Peter Grosscup, Chicago, and Mr. Francis Forbes, New York City.

Resolved, That the members of this society be urged to write their Congressional representatives at Washington and bespeak their support of any measures of relief ultimately proposed by the commission.

The following officers were elected for the ensuing year:

President—Dr. Duncan Eve, Nashville.

First Vice-President—Dr. A. J. Ochsner Chicago.

Second Vice-President—Dr. J. C. Morfit, St. Louis.

Secretary—Dr. Henry E. Tuley Louisville, re-elected.

Treasurer—Dr. Dudley S. Reynolds, Louisville, re-elected.

Chicago was selected as the place for holding the next meeting, the time of which is to be fixed by the committee of arrangements and the executive officers.

ENTERTAINMENTS: Modesty forbids that we should make more than passing notice thereof, yet we cannot refrain from quoting from one of the most valued of our exchanges *The Cincinnati Lancet-Clinic* of Oct. 22d, edited by Dr. J. C. Culbertson, who succeeded the Father of the Association in editorial control of the *Journal of the American Medical Association*, and has for years prior and subsequent thereto, held down the editorial tripod of our valued weekly contemporary. The extract is as follows:

"In the evening of the first day a banquet was served to visitors at the Duncan House. The menu was excellent, and after-dinner speeches superb. Rarely have they been surpassed upon similar occasions.

The second evening furnished an opportunity for the citizens to entertain members of the association at a reception given at the Maxwell House, which was followed by an elegant collation and dance.

On the third evening members were invited to a musicale given by the Wednesday Morning Musical Club, which, for an exhibition of refined culture, was one of the most charming affairs that was ever given.

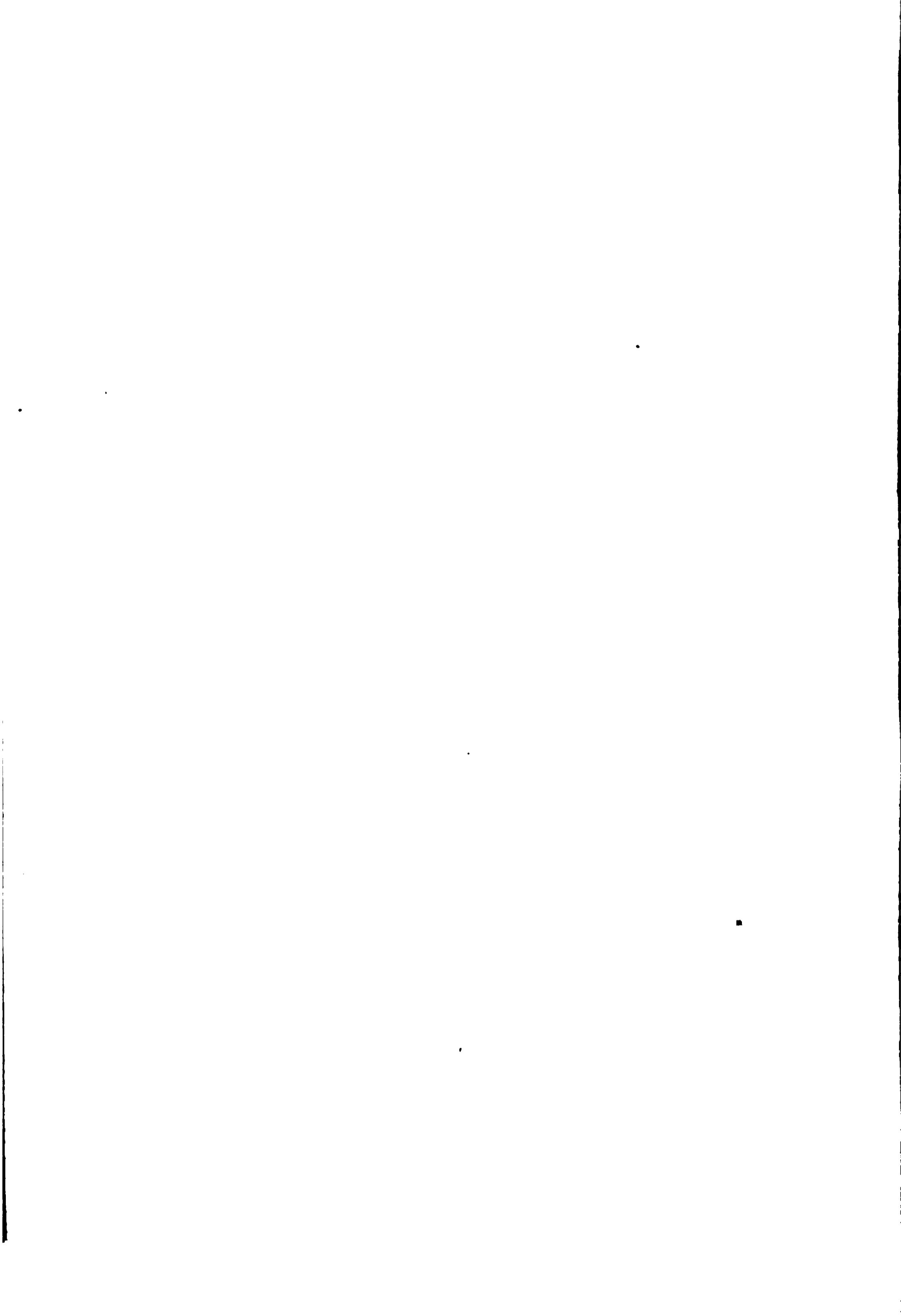
In connection with this the writer cannot refrain from saying a little about this Wednesday Morning Musical Club. It is composed mainly of ladies who have had a musical or other special education and then got married, a chief purpose of the club being to meet together every alternate week and give a musicale, in order to keep up their practice and interest in music, as well as for social reasons. These ladies have elegant club-rooms, a splendid hall, with seating capacity for about two hundred. A raised platform with two grand pianos afford the desired opportunities for the dames and their friends.

In these days of the new woman, every up-to-date city should have an organization similar to the Nashville Wednesday Morning Club. Girls who have had little fortunes lavished on them for their education and culture, after marriage are very apt to allow their music to rust from desuetude, which a Wednesday Morning Club counteracts and keeps

Duncan Eve, A.M., M.D.,

PRESIDENT OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Prof. of Surgery and Clinical Surgery, Medical Department Vanderbilt University; Chief Surgeon N. C. & St. L. R. R., and Surgeon to the L. & N. R. R., One of the Contributors to Park's Surgery by American Authors; formerly Joint Proprietor and Editor of the Southern Practitioner; Ex-Vice-President of the American Medical Association; Ex-President and Ex-Secretary Tennessee State Medical Society; formerly Prof. of Surgery and Dean of the Faculty of the Medical Department University of Tennessee and one of its founders; Ex-Surgeon General Tennessee State Guard, Etc., Etc.



bright, as evidenced by the Nashville ladies. It was good to be there."

Attendance: While the attendance was not so large as was hoped and anticipated, it was eminently a successful meeting. Many from the South were detained by quarantine measures, others in the North were apprehensive of approaching so near the line where such were demanded, yet there were others of the "Old Guard" of this lively and progressive organization on hand. Although Griffin, of Illinois, Owens and Larrabee, of Kentucky, the two former ex-presidents, the latter an ex-vice-president, ex-secretary Woodburn, and others had crossed the silent river; and Love, of Missouri, detained by the serious illness of an only son, and yet others kept away by like personal affliction or unexpected and imperative duties due to the afflictions of the others, there was a sufficiency of old members on hand to lead the way or hold down the new blood that was infused into the association which will be found in the following new members who were favorably reported on by the committee and elected at this meeting.

Drs. George Ben Johnston, Richmond, Va.; J. W. Bovee, Washington City; Joseph H. Mooney, Kansas City; E. W. Woodruff, Columbus, O.; A. B. Cooke, Nashville; Porter Prather, Lexington, Ky.; Andrew Timberman, Columbus, O.; J. M. Coyle, Ernest B. Sangree, W. A. Atchison, G. C. Savage, John A. Gaines; Perry Bro mberg, J. B. Stephens, Charles S. Briggs, R. O. Tucker, W. Frank Glenn, Lynn B. Graddy, G. P. Edwards, Paul F. Eve, J. W. Handly, Barton Warren Stone, Nashville; William K. Jaques, Chicago; J. W. Watson, Bradly, Ky.; Rufus L. Grogan, Murray, Ky., Albert Beerbenn, Paducah, Ky., John Wm. Brandon, Clarksville; J. B. Cowan, Tullahoma, Tenn.; W. B. Burns, Decker-ville, Ark.; S. S. Anderson, Sullivan, Ky.; V. E. Handley, Sturgis, Ky.; R. H. C. Rhea, Morganfield, Ky.; Samuel Louis Henry, Seven Groves, Ky.; P. M. Cox, Boxville, Ky.; Ramon D. Garcin, Richmond, Va.; Wiley Lee Dixon, Morganfield, Ky.; Wm. R. Stephens, Trenton, Ky.; David F. Banks, Jordonia, Tenn.; Horace T. Rivers Paducah, Ky.; Charles L. Minor, Asheville, N. C.; Louis Henry Warren, Brooklyn, N. Y.; T. J. Jackson, Liberty, Tenn.; S. E. Miller, Dallas, Tex.; Wm. A. Adams, St. Louis; Jokichi Takamine, New York City; Charles T. McClintock, Detroit, Mich.; L. B. McWhorter, Cowan, Tenn.; J. B. Murfree, and Enoch H. Jones, Murfreesboro, Tenn.; W. E. Barthell, Kirkman-ville, Ky.; William S. Scott, Dickson, Tenn.; Richard Douglas, Nashville; S. J. Rollan, Kennedy; J. B. Jason, Hopkinsville, Ky.; J. W. Knowlton, Paint Rock, Ala.; Paul Clemons, Nashville; R. B. McKinney, Memphis; Jules Swanson Nowlin, Shelbyville; William C. Bilbro, Murfreesboro; Wade H. Barrett, Franklin; Frank C. Foster, New York; J. C. Morfit, St. Louis; Edwin Frazer Wilson, Columbus, O.; Hal C. Wyman, Detroit, Mich.; Frank A. Jones, Memphis; S. C. Carson, Greensboro, Ala.; J. L. Jelks, Memphis; Thomas L. Maddin, Nashville; T. K. Powell, Dan-eyville; Samuel R. Bates, Smyrna; Thomas F. Taylor, Stokes; V. A. Biggs, Martin; Mayne B. McCrory, Woodbury; D. F. McKay, Martin, Tenn.

THE EXHIBITS.

One of the most attractive features of the meeting was the Senate Chamber, which had been appropriated to the use of those who had medical and surgical appliances that they wished to bring directly and personally before the members of the Association. The handsome hall, 75x35 feet, with its lofty ceiling, and large windows affording a flood of light to its every part, never looked so inviting; each exhibitor vieing with the others in his efforts to make a handsome display.

Immediately on the right of the entrance and along the south wall was the very handsome and beautifully arranged stand of Messrs. Fairchild's Bros. & Foster, of New York, its pyramidal structure filled with their Panopepton, Peptogonic Milk Powder, Pancreatinin and other digestive preparations.

Next was the display of the products of the bacteriologic laboratories of John T. Millikin & Co., of St. Louis, which are under the directorship of Dr. Carl Fisch, and consisted of the new Tuberculin, T. R., Tuberculinum Kochii, and Antiphthisic, Antisreptococcic, Antidiphtheritic and Antipneumococcic Serums.

His neighbor to the east was the grand display of Effervescent Granular Salts, of Keasbey & Mattison, of Ambler, Pa., mounted on shelves covered with navy blue cloth, and surmounted by "Old Glory" and a handsome life-sized lithograph of Admiral Dewey.

Theo. Tafel, the well known surgical instrument maker and dealer of this city, occupied the southeast corner with as handsome, attractive and excellent display of instruments, of latest and most approved design, as has ever been placed before an assemblage of this character. It was but a miniature representation of the magnificent stock he carries in his commodious storehouse and manufactory on North Cherry street, and being himself a manufacturer not excelled in the entire country, having served some years effectively in the factory of the celebrated Tieman, he had and has justly no reason to fear competition.

On the east side of the hall the spaces on either side of the Speaker's rostrum were occupied by the Trommer Extract of Malt Co., of Fremont, Ohio, with their various malt preparations, plain, or combined with cod liver oil, hypophosphites, etc.; and the Maltine Co. of Brooklyn, N. Y., with their very excellent Maltine, which they claim is not merely malt, nor a mere extract or essence of malt, but the most highly concentrated extraction of all the nutritive and digestive properties of wheat, oats and malted barley. Both displays were handsomely mounted and arranged.

The first space at the north end of the hall was occupied by the well known and standard Imperial Granum, a pure and palatable food for the baby, the invalid, the convalescent and the aged, which continues to give the most satisfactory results wherever tried. The Imperial Granum Co., of New Haven, Conn., was very ably represented and had a very pretty and attractive display. The Arlington Chemical Co., of Yonkers, N. Y., occupied the adjoining space with a very nice display of their preparations in the care of Mr. F. L. Landis.

Tarrant & Co., of New York, sole agent for Leopold Hoff's Malt also had a very nice display at this end of the room, where their nourishing and strengthening beverage, ice-cold, was profusely and liberally offered to all who were thirsty.

Along the west wall was arranged the following, beginning at the entrance: The Inland Chemical Co., of Indianapolis, with their laxative; Emil Willbrandt Co., of St. Louis, with a good display of surgical instruments; the Harvard Chair Co., with one of their most excellent and well arranged and adapted surgical chairs; The Pulvola Chemical Co., of New York, with their baby powder, the best of its kind; the White Rock Mineral Springs Co., of Waukesha, with a beautiful array and an abundant supply of ice-cold, and tempting on the hot days of the meeting, of their inimitable and unsurpassed water from the White Rock Springs, which is kept in stock and sold in any quantity by Messrs. Demoville & Co., of this city. D. Appleton & Co. closing up the line with a grand display of their latest medical and surgical books.

In the centre of the hall the displays occupied a double row, arranged back to back, and first on the list was the Mellier Drug Co., of St. Louis, in charge of Mr. Albin Mellier, facing west, with their preparation of Tongaline, liquid and in tablets, a preparation that has proven so effective in the relief of rheumatism and neuralgia as to almost become a household word throughout the land.

Facing east Armour & Co., of Chicago, with their pepsins had a very handsome display. Their preparations of Bone Marrow, Predigested Beef and Thyroid Extract need no commendation at our hands.

The Horlich Ford Co., of Racine, Wis., facing west, with their Malted Milk, was backed by the H. K. Wampole & Co., of Philadelphia, with their beautiful preparations of cod liver oil, pure, and tasteless, together with a brilliant array of pills, sugar and gelatine coated, granules and other pharmaceuticals.

C. Bischoff & Co., of New York, facing west, represented by Dr. P. Caspers, had a very pretty display of their Kryofine, an analgesic and antipyretic that is rapidly attaining popularity, and is justly appreciated wherever tried, was backed by the Pneumachemic Co., of Cincinnati, represented by Dr. John Robinson.

William R. Warner & Co., of Philadeldhta, so widely known as the manufacturers of gelatin and sugar-coated pills, which are the standard of excellence and have received awards of merit wherever exhibited, whether in London, Paris, or the great World Fair at Chicago, had a beautiful exhibit of their pills, granules and galenical preparations, and were ably looked after by their energetic and affable representative, Mr. Roach. This display and that of the Globe Nelulizer Co., of Battle Creek, Mich., both looking west, were backed by the well known establishment of Messrs. Parke, Davis & Co., whose display was in charge of Mr. Steiner, so well known in the South and Southwest, assisted by Mr. Jokichi Takamine, of Japan, the originator of their latest digestive prep-

aration—Taka-Diastase, so capable of digesting starchy matter. The microscope attachment and the products of their biological laboratory attracted much attention and this display was one of the features of the Exhibit Hall.

The W. D. Allison Chair Co., of Indianapolis, represented by Dr. Dugan, by consent of all the other exhibitors, had one of their beautiful adjustable surgical and gynecological tables and a very unique and handsome revolving stand for instruments, dressings, etc., just outside the door of the hall.

The Bureau of the Medical Press, under the charge of Chas. Wood Fassett, was a prominent feature of the Exhibit Hall, occupying the Speaker's rostrum. The following medical magazines were represented:

Philadelphia Medical Journal, International Journal of Surgery, American Journal of Gynecology and Obstetrics, Medical Review of Reviews, Journal of Cutaneous and Genito-Urinary Diseases, of N. Y., National Medical Review, D. C., Hot Springs Medical Journal, Ark., Memphis Lancet, Chicago Clinic, New Orleans Medical and Surgical Journal, Denver Medical Times, Kansas City Medical and Surgical Journal, New York Post-Graduate Journal, Medical and Surgical Bulletin, SOUTHERN PRACTITIONER, NASHVILLE, Medical Fortnightly, Medical Herald, American Medical Journalist, of St. Joseph, Mo.

"LOVE'S LABOR LOST."

Our good friend, Dr. Happel, of Trenton, Tenn., who so ably presided during a part of the sessions of the last meeting of the American Medical Association at Denver, and our equally good friend, Dr. D. S. Reynolds, of Louisville, Ky., as well as some others, have been tickling each other in the "correspondence department, of *The Association Journal* in regard to the resolution offered by Dr. Reynolds and adopted by the Association at the Denver meeting, excluding from the Association all graduates of, and teachers in college that do not observe the regulations of the American Medical College Association. Dr. Savage, of this city, in a communication in the *Association Journal* for September 24th, has the following:

"Up to this time it had not occurred to me, and it seems that it had not occurred to any one else, that the whole thing was out of order, or I should have raised that point, which, if sustained by the presiding officer, would have delayed final action for one year."

In our report of the Denver meeting in our July number, we published the resolution as offered by Dr. Reynolds, and adopted by the Association, to which we added the following: "This action will prove a 'love's labor lost.' It contravenes constitutional privileges of regular members of the profession and can only become operative by being regularly introduced in writing at one meeting of the Association, and adopted at a subsequent meeting one year later by a three-fourths vote of all members in attendance." See this Journal, Vol. xx. (July 1898.) p. 293.

LAXIQUININ.—A combination justly popular in the malarial districts of this country, and one that is being more and more generally used where an infection is to be warded off, is Laxiquinin. Composed, as it is, of iquinin, which has been proved clinically superior to quinine, together with fractional doses of podophyllin, euonymin and other vegetable laxatives, it contains in small bulk ingredients which might well require several prescriptions. Thus the fastidious patient is not nauseated by multitudinous doses of unpalatable mixtures, but the desired result obtained by the administration of one remedy. As Laxiquinin depends for its action upon an isomeric form of quinine, it is largely supplanting that drug, inasmuch as the disagreeable effects of the ordinary cinchona salts are lacking. The laxative effect is slight, but certain, serving to alleviate the most obstinate constipation without griping or producing catharsis. It has been found invaluable in breaking up a cold, and while, of course, it does not abort an established infection, yet an incipient or threatening bronchitis or an even more severe inflammation of the respiratory tract is often avoided.

Bent Creek, Appomattox Co., Va., Aug. 31, '98.

BATTLE & Co.

Gentlemen:—Enclosed find 25 cents in stamps. Please send me sample bottle 12 ounce, of your "Ecthol" and oblige,

E. S. VAWTER, M. D.

P. S.—I am well acquainted with your preparations, Papine, Bromidia and Iodia. Use them in all cases for which they are specified. They are now standard remedies with the profession and give satisfaction whenever used. I would recommend them to all physicians not acquainted with their potency.

FOR SALE.—A valuable village location in West Tennessee, for a Doctor. Splendid residence, barn, fruits, etc. Worth \$3,000; Price, \$1,200. No competition. One of the best chances of the day.

Address M. M. Smith, M.D., Cedar Chapel, Tenn. Refer to Editor of this Journal, and James A. Albright, M.D., Secretary State Board of Health, Nashville, Tenn.

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

Reviews and Book Notices.

A MANUAL OF OTOTOLOGY. By GORHAM BACON, A.M., M.D., Professor of Otology in Cornell University Medical College, New York. With an Introductory Chapter by CLARENCE J. BLAKE, M.D., Professor of Otology in the Harvard Medical School, Boston. In one handsome 12mo. volume of 400 pages, with 109 engravings and 1 colored plate. Cloth, \$2.00 net. LEA BROTHERS & CO., Publishers, Philadelphia and New York, 1898.

This new and compendious manual of modern otology owes its text to Professor Gorham Bacon, of the Cornell University Medical College in New York City, and it bears a cordial endorsement in an introduction by Professor Clarence J. Blake, of the Harvard Medical School, Boston. It comes to hand with the full stamp of authoritativeness and at a most opportune time.

Though one of the more patient of human organs, the ear has its own share of troubles, and their urgency, painfulness and contiguity of vital spots renders it incumbent upon every student and practitioner to be prepared to meet them. Modern otology is abundantly resourceful, as shown in this clearly written and well illustrated handbook, which will be of service, not only to the undergraduate and the general practitioner, but to the otologist as well.

THE CARE OF THE BABY. A Manual for Mothers and Nurses. Containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. CROZER GRIFFITH, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, to the Methodist Episcopal Hospital and to St. Agnes' Hospital, Philadelphia; Member of the American Pædiatric Society and of the Association of American Physicians. Pp. 404; 12mo., cloth. Second Edition, Revised. Price, \$1.50. W. B. SAUNDERS, 925 Walnut St.; Philadelphia. 1898.

The first chapter of this book discusses the hygiene of pregnancy, method of calculating date of confinement and other

important data. In the second, characteristics of a healthy baby are considered, and the growth of its mind and body in the third. The chapters which follow relate to the methods of bathing, dressing and feeding children of different ages; to the hours for sleeping, to physical and mental exercise and training, and to the proper qualities of the children's various nurses and rooms, in which details are emphasized, made clear and complete and thoroughly up to date.

The first edition having met with such gratifying success has encouraged the author in a thorough revision, bringing this one thoroughly up to the demands of the times. It is a reliable guide, not only for mothers and nurses, but also for medical students and practitioners whose opportunities of observing children have been limited, and, if carefully studied by them will be time well spent.

TREATMENT OF SKIN CANCERS. By W. S. GOTTHEIL, M.D., Professor of Dermatology at the New York School of Medicine; Dermatologist to the Lebanon Hospital, the Northwestern and the Westside German Dispensaries, Etc. Published by THE INTERNATIONAL JOURNAL OF SURGERY CO., 110 William Street, New York. Price, \$1.00.

The subject is treated in a practical manner, from the standpoint of the general practitioner as well as the specialist, and while every prominent modern method in the non-operative treatment of cutaneous cancer has received mention, the author elaborates especially upon the caustic method, which experience has commended to him, and dwells upon the two essential points, recognition and treatment.

This book is printed upon heavy book paper, is substantially bound and profusely illustrated.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY. By R. WITTHAUS, A.M., M.D., Professor of Chemistry, Physics and Toxicology in the Medical Department Cornell University; Professor of Chemistry and Toxicology in the Medical Department University of Vermont; Member of the American, Paris and Berlin Chemical Societies. Pp. 110. Fourth Edition. Wm. Wood & Co., Publishers, New York, N. Y., 1898.

We have previously had occasion to commend this little work, the outcome of a master-hand in the chemical laboratory;

His seventeen "General Rules for Working" should be so plainly inscribed in every laboratory—be it ever so grand or humble—"that he who runs may read." It is, indeed, just what it proposes to be, "A Laboratory Guide," and a most excellent one.

THE AMERICAN POCKET MEDICAL DICTIONARY. By W. A. NEWMAN DORLAND, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania; Fellow of the American Academy of Medicine. Containing the Pronunciation and Definition of Over 26,000 Words and Terms Used in Medicine and the Kindred Sciences, Together With Over Sixty Extensive Tables. Flexible morocco; gilt edges; pp. 518. Price, \$1.25. W. B. SAUNDERS, 925 Walnut Street. Philadelphia, Publisher, 1898.

One of the very best and most thorough, complete and practical "pocket lexicons" we have yet seen. The definitions, while brief, of necessity, are clear, adequate and to the point. Special attention has been given to the newer terms, so many of which have been recently introduced, and the latest medical literature has been carefully gleaned. Besides the ordinary dictionary terms, a large number of anatomical and other tables have been introduced, being of important value in fixing in the memory important facts and data otherwise difficult of retention. This will be found exceedingly useful for students and others preparing for examinations. And then the little work is so handy and easy of access. We can indeed commend both publisher and editor, who have done their work so well.

ESSENTIALS OF MATERIA MEDICA, THERAPEUTICS AND PRESCRIPTION WRITING (Arranged in the Form of Questions and Answers). Prepared Especially for Students of Medicine, by HENRY MORRIS, M.D., Fellow of the College of Physicians of Philadelphia; Physician to St. Joseph's Hospital, Etc. 12mo.; cloth; 288 pages. Fifth Edition, Revised and Enlarged; price, \$1.00. W. B. SAUNDERS, Publisher, 925 Walnut Street, Philadelphia, 1898.

Since the first number of Saunders' Question Compend was issued over 160,000 copies of these excellent little volumes have been sold, and the excellent work of Dr. Morris having reached its fifth edition, it evidently is a "top-number" in popularity with students and physicians; for, while originally intended for

those in their novitiate, all practitioners being, or should be, students of medicine until the final roll-call, many have availed themselves of the valuable information contained in so small and handy compass. "Verbum sufficit."

MANUAL OF SKIN DISEASES.—With Special Reference to Diagnosis and Treatment. For the use of Students and General Practitioners. By W. A. HARDAWAY, M.D., Professor of Diseases of the Skin in the Missouri Medical College, St. Louis. Second edition, entirely rewritten and much enlarged. In one handsome 12mo. volume of 560 pages, with 40 engravings and 2 colored plates. Cloth, \$2.25, net, LEA BROTHERS & CO., Publishers, Philadelphia and New York.

Professor Hardaway's *Manual* in its first edition won the esteem of critical specialists as being a most admirable epitome of the practical side of Dermatology. Selection and clearness of presentation are the qualities of an accomplished teacher, and these are manifested in an unexcelled degree in the volume at hand. The demand for a new edition has been met by the author with a thorough revision, resulting in a great increase in text and illustrations. The work has been thus brought thoroughly to date and its enlargement has withal been accompanied with a reduction in price, which expresses the publishers' confidence of a widely extended sale.

THE PRINCIPLES AND PRACTICE OF HYDROTHERAPY. A Guide to the Application of Water in Disease. For Students and Practitioners of Medicine. By SIMON BARUCH, M.D., Visiting Physician to the J. Hood Wright (formerly Manhattan General) Hospital; Consulting Physician to the Montefiore Home for Chronic Invalids; Member of the New York Academy of Medicine; Etc., Etc. 8vo.; cloth; 435 pages, with numerous illustrations. WM. WOOD & CO., Publishers, New York. 1898.

This work represents the observations of the author, who has large experience, and who has gathered his data from private and hospital practice extending over a third of a century, and more recently from special institution work, in which are recorded over one hundred thousand hydriatic treatments, and is confidently offered as a trustworthy guide in hydrotherapeutics.

The first part deals with the physical properties of water and its mode of action in health, including a very excellent and practical chapter (II) on the Functions of the Skin. The

second part is devoted to the practice of Hydrotherapy. The various methods of applying water in disease are minutely described and illustrated, the rationale of each procedure is discussed, and its special therapeutic indications are outlined. The concluding chapter (XXVII) comprises a Historical Epitome, from the earliest time to date, as has been developed in Germany, Italy, France, England and America.

It is indeed a most excellent addition to the literature of the year, voluminous though it be, and if more stress was placed upon proper instruction by our medical teachers—as is so earnestly advocated by the author—so valuable a therapeutic aid would add greatly to the prowess, skill and success of future practitioners of the healing art.

THE TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science, by Leading Authorities of Europe and America. Edited by THOS. L. STEDMAN, M.D. In Twenty Volumes. Vol. XV. Infectious Diseases. 8vo; cloth; pp. 658. Wm. WOOD & Co., New York, Publishers, 1898.

Three-fourths of the magnificent undertaking of Messrs. Wood & Co. are now complete, and but five more volumes are to follow of this grand exposition of modern medical attainment, and this enrichment of medical literature will stand as a complete and thorough summing up of the highest development of the age.

Vol. XV. comprises a continuation of Infectious Diseases, and we find the subject of Influenza, by Ditmar Finkler, Professor of Internal Medicine at the University of Bonn, occupies about 250 pages. Typhus Fever is thoroughly considered by Edwards Licéago, Professor of Surgical Therapeutics in the National School of Medicine in the City of Mexico, in about 77 pages. S. Kitasoto and A. Nakargawa, of Tokio, Japan, occupy about 26 pages with the subject of Plague. Glanders, 47 pages, and Anthrax, 57 pages, were entrusted to Frank S. Billings, M.D., of Grafton, Mass., formerly Professor of Pathology in Chicago. Foot and Mouth Diseases, by Ismar Boas, M.D., of Berlin, is allotted 16 pages. Actinomycosis, about 20 pages, is written by Emil Ponfick, of the University of Breslau. N. G. Kierle, M.D., Professor of Pathology and Medical Jurispru-

dence, and Chief of Laboratory, Pasteur Department, College of Physicians and Surgeons of Baltimore, consumes about 64 pages in an elaborate consideration of Rabies. Pyæmia and Septicæmia, by J. McFadden Gaston, M.D., Professor of Surgery, Southern Medical College, and J. McFadden Gaston, Jr., M.D., of Atlanta, complete the work with their very able joint dissertation. The very full and complete alphabetical index occupies 18 pages.

As a work of reference in regard to these important subjects, giving us the accepted facts as recognized to-day, this volume stands without a superior, and will be readily accepted as a most important store-house of practical medical knowledge.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in the Johns Hopkins University and Physician in Chief to the Johns Hopkins Hospital, Baltimore; Formerly Professor of the Institutes of Medicine, McGill University, Montreal; and Professor of Clinical Medicine in the University of Pennsylvania. Third Edition. Cloth; royal 8vo.; pp. 1180. D. APPLETON & Co., New York, Publishers, 1898.

With new type, clear paper of the best quality, and a somewhat enlarged page, necessitated by the amount of matter in the very thorough revision of a book whose first edition appeared six years ago, Osler's Practice comes to us with that handsome *entourage* its prime excellence, merit and true value demand.

While in the second edition, issued three years ago, many corrections (as is always the case with the very best of authors) were made and much new matter added, this edition, as to its subject matter, has been thoroughly recast, and a pristine newness, with the improvement of experience, which we hardly deemed possible after studying carefully and closely its predecessors, is the result.

It was but a short time after the first edition was issued before Osler's Practice took a firm hold on our most progressive teachers, and it has largely been recommended as a "text-book" for students in our leading medical colleges and universities, and justly so from its thoroughness and correct teaching; yet the more we see of it, and especially as regards the last edition, we

cannot but regard it as of the greatest value to the practitioner, no matter how experienced, and we can always turn to it with that confidence that we do to "Webster's Unabridged" in questions of etymology or philology.

From first to last, title page to index, the work is thoroughly practical, and as a guide in diagnosis, symptomatology, and treatment, will be found well nigh incomparable, and cannot but be the more appreciated the more its sound advice and wise counsel is sought, whether by the neophyte in medicine or the most experienced clinician.

As an evidence of its being thoroughly up to date, may be cited some of the references, among which may be mentioned late issues of Johns Hopkins Hospital Reports, the New York and Montreal medical journals of last year, Gould's Year Book of Treatment for 1898 and a number of others of like date.

DISEASES OF WOMEN.—A Manual of Gynecology. Desigued especially for the use of Students and General Practitioners. By FRANCIS H. DAVENPORT, M.D., Assistant Professor of Gynecology in the Medical Department of Harvard University, Boston. New (3d) revised and enlarged edition. In one handsome 12mo. volume of 387 pages. with 155 illustrations. Cloth, \$1.75; net. LEA BROTHERS & Co., Philadelphia and New York, 1898.

In its new edition Professor Davenport's work for the first time treats the whole domain of gynecology. Admirers of his earlier editions will still find that for which they sought other works in vain, namely, the non-surgical methods, in ample detail, and they will be gratified to find the work equally satisfactory on the surgical side. The author has wisely preserved its moderate size, though he has added a quarter to its text, and a half to its number of illustrations. The book goes again to the profession with an enviable reputation which its new features and fresh revision will increase.

In order to bring this excellent work in as small compass as possible, pathological anatomy has been left out, and diagnosis and treatment have received the more elaborate consideration; and such measures are given that have been practically found of the greatest benefit in the author's hands. The book aims to be purely a practical one, and questions that are yet largely still matters of theory are ignored.

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DEERING J. ROBERTS, M.D., - - - Editor and Proprietor.

Vol. XX. NASHVILLE, DECEMBER, 1898. No. 12.

Original Communications.

FRACTURES OF THE SPINE WITH REPORT OF CASES.*

BY PAUL F. EVE, M.D., NASHVILLE, TENN.

Professor of Surgery and Clinical Surgery, and Dean of the Faculty
Medical Department University of Tennessee.

These fractures are quite rare as compared with those of other bones, constituting about 3.3 per cent. of nearly 52,000 fractures treated during the past thirty-five years in the London Hospital.

It is on account of their rarity that these fractures until recently, have attracted very little attention, although I am happy

*Special address delivered at the Nashville Academy of Medicine, Nov. 3, 1896.

to say, that to-day, they are receiving great consideration from some of the most painstaking and distinguished surgeons.

By referring to Gurlt's table, we find that fractures of the cervical and dorsal vertebræ occur more frequent than those of any other region, while those of the lumbar region come next in order.

The individual vertebræ most commonly fractured, are the fifth and sixth cervical, the last dorsal and the first lumbar; those fractures which prove the most fatal, being those which involve the cervical region.

Fractures of the spine occur much more frequently in the male than the female, owing to their occupation and exposure.

Again referring to Gurlt, we find the body of the vertebra, forms about two-thirds of all the fractures in the cervical region and seven-eighths of all in the dorsal region. Fractures in the arches, in about one-half of the cases in the cervical, one-seventh of those in the dorsal region, and one-eighth in the lumbar region.

The causes which produce such fractures are due to indirect violence, such as a fall from a height, landing either on the hands, feet or buttocks, by extreme flexion or extension, or by direct force, such as a gun shot or other wound.

The symptoms which present themselves in ordinary cases, are not very difficult to diagnose; these are such as pain, which is greatly aggravated on motion, tenderness on pressure over point of injury, swelling and more or less paralysis of motion or sensation, or both.

As Keen has well exemplified, the spinal cord is made up of a series of horizontal segments, placed on top of one another, like a pile of checkers, and one pair of nerves right and left arising from each segment; thus the fifth cervical segment, would be that segment of the spinal cord from which the fifth cervical nerve root takes its origin.

These segments, however, do not agree in position with the numerical corresponding vertebræ.

Thorburn calls attention to the fifth root group of muscles and the position taken by the patient who has had an injury affecting the fifth cervical nerve. The patient lies with his arm in a peculiar condition, with abduction and flexion at the elbow,

the hand supinated and the humerus rotated externally, the deltoid muscle paralyzed and the elbow lying next to the body.

The area of anaesthesia varies with the level of the injury. Starr concludes after many experiments, that in the spinal cord the centres of control of the bladder and rectum are always affected together. Complete transverse lesions of the cord give complete muscular paralysis of the parts below the level of the injury and complete anaesthesia below the level of the injured nerve, and therefore complete destruction of the knee-jerk and deep reflexes. If, however, the transverse lesion of the cord be partial, the muscular paralysis and anaesthesia will be incomplete. When fractures of the four upper cervical vertebrae occur, the injury generally proves fatal, although there are a few cases in which the patients have survived. In Hilton's case, life was prolonged for fourteen years. The symptoms present in these cases, are complete paralysis below the seat of fracture, rigidity of the neck, etc., and in the majority of the cases distinct crepitus.

When the fracture involves the lower cervical and the first two dorsal vertebrae, it is well for us to bear in mind the table which Thornburn has given us, and while this is only approximately correct, yet in my opinion, it furnishes us the best guide for diagnosing the seat of fracture. The table is as follows: The fourth cervical nerve supplies the supra and infra spinatus muscles. The fifth, the biceps, brachialis anticus, deltoid and supinators. The sixth, the sub-scapularis, pronators, teres major, lattissimus dorsi, triceps and pectoralis major. The seventh, the extensors of the wrist. The first dorsal, the flexors of the wrist; and the second dorsal, the interossei and intrinsic muscles of the hand. Thus, when paralysis of motion and sensation exist in any class of the muscles thus enumerated, we can, to some extent, form an opinion as to where the seat of fracture occurs. In a case reported by Thorburn, where there was a fracture of the first dorsal, with a dislocation forward of the seventh cervical vertebra, the cord was compressed at this level; softening occurred for a short distance above and below the site of compression, the center being occupied by an effusion of blood, reaching as high as the fifth cervical nerve root in the form of a narrow cone. At first, there was paralysis only of the intrinsic

muscles of the hand and interossei, but afterwards, when the case was watched from day to day, by extension upwards of the myelitis, the motor power failed in the muscles in the following order: 1st, flexors of the wrist; 2nd, extensors of the wrist; 3rd, triceps and pectoralis major; 4th, latissimus dorsi; 5th, teres major and subscapularis; 6th, deltoid, flexors of the elbow, supra and infra spinatus.

In fractures occurring between the second dorsal and second lumbar vertebræ, we have paralysis of all those parts of the body supplied by these nerves. Thus, when occurring in the upper dorsal, we have marked paralysis of the muscles of the abdomen, tympany of the intestines, difficulty in breathing, which increases the higher the fracture, owing to paralysis of the intercostal muscles, with frequent development of hypostatic pneumonia (from which the patient frequently dies), together with the common symptoms of any fracture in this region, as paralysis of the bladder, which first becomes distended and then incontinence of urine follows resulting in cystitis, due to ammoniacal and phosphatic urine; paralysis of the rectum, with retention of feces and partial or complete paraplegia of the lower extremities.

When fractures occur in the lower lumbar vertebræ, they are not followed by any very marked symptoms, on account of the fact that the spinal cord terminates at the level of the second lumbar vertebra and the long root of the cauda equina, surrounded by smooth fibrous membrane, slips out of the way of the broken fragments, thus in the majority of instances escaping injury. Crepitus can seldom be obtained and but little or no deformity is seen.

The only symptoms that manifest themselves, are pain at the seat of fracture, swelling, tenderness on pressure, and an inability when the patient attempts to stand.

When the cauda equina is involved, we have paralysis of those parts to which its nerves are distributed.

In the treatment of these fractures, the only methods used until recently, were conducted on the plan of extension and counter-extensiou, with manipulation over the seat of fracture. The patient is placed upon his back; on an especially prepared bed, the water bed being preferable to all others, and in the vent this cannot be procured, an ordinary cotton mattress, per-

fectly smooth in every part, covered by mackintosh may be used, supplemented by air cushions and rubber rings for the protection of the most salient points; the spine is now gently straightened, the head being held by an assistant, with his hands upon the chin and occiput, the lower limbs gently drawn down by another assistant, while the surgeon presses the displaced bones into position.

When the fragments have been reduced, they are maintained in position by extension from the head or chin, if the fracture is high up, or from the axilla if lower down; while counter-extension is placed upon the legs, by Buck's apparatus.

Great care and attention should be given to the bladder and rectum.

To prevent cystitis, the bladder should be emptied by the catheter every six hours; while the bowels should be moved by a gentle cathartic. The person of the patient should be kept scrupulously clean, and when despite of all efforts, bed sores present themselves, they should be relieved by air cushions and receive vigorous treatment. Every means should be used to keep up the vitality of the patient.

In a case reported by Dr. Wyeth, in which a fracture of the eleventh and twelfth dorsal and first lumbar vertebræ were involved, the injury resulting in immediate paraplegia, involving paralysis of the bladder and rectum, and who remained in a helpless condition for six months without treatment, he devised the following apparatus, consisting of a girth of plaster of Paris, which was snugly applied, extending from the seat of fracture up to the axilla; a second girth, the upper margin of which extended from the point of fracture downwards, and which caught the expansion of the hips below. Into these girths, at three different and equal distant points, were placed iron staples, worked in the plaster dressing and which was allowed to harden. Extension bars were placed in the staples, and by key and ratchet, the superincumbent weight was lifted from the point of fracture.

The patient wore this apparatus for more than a year, with great comfort and marked improvement of symptoms.

When we consider the number of patients treated by this method, and the great per cent. of mortality which has followed,

we are not surprised to find, that in these later days, other means are resorted to for the purpose, if possible, of prolonging life and adding to the comfort and welfare of the patient.

In recent years, laminectomy or resection of the laminæ, has been resorted to, with more or less success, and we have every reason to believe that in the future, great results are to follow. It has been proven by numerous experiments and observations upon cases operated upon, that laminectomy does not greatly or permanently weaken the spine, and the risk under antiseptic surgery is but little or none as tends to inflammation of the cord or membranes.

It has also been ascertained by these experiments, that in a number of cases the cord and its membranes have been seen to be compressed by the laminæ themselves. Statistics in thirty-seven cases where laminectomy was performed for fractured spine show six complete recoveries, six recoveries with benefit, eleven recoveries unimproved, and fourteen deaths, a mortality of 38 per cent.

The technique of the operation may be thus described: After the parts have been thoroughly cleansed, the patient is placed in a prone position, with a gentle curve of the spine, being given by means of a firm small pillow placed under the lower ribs. A long incision, say five or six inches, is made down to the tips of the spinous processes, the center of the incision being opposite the seat of fracture. The edges of this incision are now dissected up, the muscular structures and periosteum being treated in the same manner and the laminæ fully exposed, retractors are used to hold back the tissues on either side; all hemorrhage is now checked, either by pressure forceps or hot packs. By a strong pair of bone forceps the spinous processes are now divided close to their base, thus affording a free exposure of the laminæ. The laminæ are next cut through by the Rongeur forceps, as close to the transverse processes as possible. The dura is inspected; if dark or purplish from the presence of blood, or yellow from pus, it should be incised and emptied.

When this is completed, and all compression from the cord or its membranes removed, if it has been found necessary to open the dura, this should be first stitched together; a

small drainage tube or strands of catgut are now placed the entire length of the wound and the parts brought together by sutures.

In this connection I desire to call your attention to several cases that have come under my personal supervision.

Case No. I.—Mr. J., bridge carpenter by occupation, was engaged in work on a trestle and fell a distance of 40 feet. When seen shortly after the accident, on the morning of April 30th, 1898, he was suffering with profound shock and complete paralysis of both extremities. Vigorous stimulation was administered, and on an examination made later, fracture of the axis was easily diagnosed. Every means to revive and make the patient comfortable was used, but he survived the injury only four hours.

Case No. II.—Mr. H., switchman in East Nashville railroad yards, received an injury of back on the morning of May 21st, 1895. While standing too close to the track he was struck by a freight car and knocked down, doubling the spine in a space of two feet, being caught between the axle of the car and the ground. When first seen he was in extreme shock, but showed no symptoms of paralysis. Stimulation was freely given, and the patient removed by a stretcher as soon as possible to his home. On reaching his home he was placed in bed and artificial heat applied. Shortly afterwards an examination was made, which revealed a large oval-shaped mass over the dorsal vertebræ, a contusion of the sacral region, and some minor cuts and contusions over other portions of the body. Retention of urine and obstinate constipation were symptoms present at this time.

On the second day the swelling over the dorsal region had so much subsided under the treatment, that a careful examination detected a fracture of the body of the eighth dorsal vertebræ. On the third day a slight motor and sensory paralysis developed in the lower extremities, which gradually increased up to the tenth day, at which time there was complete motor and sensory paralysis of the lower extremities, with incontinence of urine and involuntary action of bowels.

The treatment instituted was extension and counter-extension, with the internal administration of large doses of iodide

of potassium. No improvement was noted until the fifteenth day after the accident, when sensation became apparent in the feet and ankles. On the twenty-first day the patient was enabled to move the feet, and sensation existed above the knees. From this date the patient made a very rapid recovery, and at the end of the fourth week was able to move, to some extent, the lower extremities, and had some control over the bladder and rectum. The extension and counter-extension were removed at the end of the sixth week. Soon after this date the patient was able to locomote with the aid of crutches.

When examined by me three months after the injury, a large callus was apparent over the eighth dorsal region. The patient ultimately made a complete recovery, with slight deformity of the spine, and is now pursuing his usual vocation.

Case No. III.—Irvin Rodes (colored) entered the City Hospital on May 17th last at 2 A. M. The following history was elicited: On the night preceding, at 11 P. M., he became involved in a brawl and received a gunshot wound in the back. His condition on entering the Hospital was that of severe shock, pain at the seat of injury, attended by complete motor paralysis of right side and loss of sensation down to the ankle and foot, with partial paralysis of left side, with impaired sensation, difficulty of breathing and paralysis of bladder and rectum. I was called in consultation on May 18th, and found his symptoms as above, with the following chart: Temperature 101° , pulse 108 and respiration 30. Upon examination of wound, a fracture of the sixth dorsal vertebra could easily be made out, but owing to the extreme condition of the patient an operation was postponed. I again saw the case on the following day, May 19th, and while shock was not quite so severe the other symptoms were intensified, with hypostatic pneumonia developing. The chart at this time was: Temperature 103° , pulse 126, respiration 36. On May 20th, finding the condition of the patient gradually growing worse, an operation was decided upon. On account of the presence of hypostatic pneumonia, no anæsthetic was administered. At the time of the operation motor and sensory paralysis was complete in right lower extremity, and greatly impaired in left lower extremity. An incision of six inches was made, the center of which was opposite the wound of entrance.

The flaps of this incision were dissected back and the muscular structures and periosteum treated in a similar manner. By means of retractors the field for operation was fully exposed, and the laminae found fractured and pressing upon the membranes of the cord.

By a strong pair of bone forceps the spinous process of the sixth dorsal vertebra was removed close to its base, and the lamina on the left side easily reached. The lamina was next divided by the forceps close to its transverse process and every detached fragment removed. The ball was not discovered, and hence not removed. The membranes of the cord was now closely inspected, and finding them to be in good condition, they were not incised. On account of a general oozing, the wound was lightly packed with iodoform gauze and the parts brought together by sutures. The patient stood the operation very badly on account of shock and difficulty in breathing. On May 21st, the patient presented about the same symptoms as the day previous, only a little increase of traumatic hysteria which was developed soon after the patient's entrance into the hospital. On May 22nd there was a slight improvement; temperature 102° , pulse 100, and respiration 30; symptoms of hypostatic pneumonia a shade better. On May 23rd patient was still improving; temperature 101° , pulse 100, respiration 22; hypostatic pneumonia clearing up, with some motion and sensation in lower extremities. On May 24, temperature 100° , pulse 90, respiration 20. Although repeated doses of salts had been given, no movement of the bowels had been obtained up to this date. By means of an enema, a large action was obtained; incontinence of urine resulting at this time. The hypostatic pneumonia now rapidly disappeared, with more marked motor and sensatory action. On May 25th, temperature 99° , pulse 90, respiration 20. On May 26th, the temperature, pulse, and respiration became normal, with increased motor and sensatory power. The bladder, however, being still emptied with the catheter and bowels remaining constipated. After this date, the patient's symptoms grew better from day to day, so far as the paralysis was concerned, but the traumatic hysteria grew much worse, at times almost approaching acute mania. On June 28th, the

patient was enabled to leave the bed, dragging the right lower extremity, with all chest symptoms relieved and function of bladder and rectum partially restored. The wound, which had been dressed and lightly packed every other day, was slow in healing, and at this date presented the size of a twenty-five cent peice. The symptoms of traumatic hysteria began gradually to abate, and the patient improved so rapidly that he was discharged from the hospital between the 25th and 28th day of August.

At the time of his discharge, the wound was nearly healed and the patient was enabled to locomote very well, still, however, not having gained full use of his right lower extremity. He called several times during the month of September for examination and treatment. His subsequent history is that of complete recovery, and he is at the present time engaged in his usual occupation.

PURULENT TUBERCULOSIS AND RHEUMATIC HIP-JOINT DISEASE.

BY A. M. PHELPS, M.D., OF NEW YORK,
Professor of Orthopedic Surgery in the Medical Department of the University of New York and the New York Post-Graduate School:
Professor of Surgery in the Medical Department of the University of Vermont, Etc.

The profession at the present time recognizes various forms of joint diseases, but by far the most common is the tubercular and purulent. The next most common joint disease is due to a rheumatic condition. In this brief paper I desire to call the attention of the profession to a few points in the etiology, pathology, symptoms and treatment. Tubercular joints begin insidiously, progress slowly and cover over periods of months or even years, and result in the formation of tubercular abscesses or extensive destruction of bone and caries. Other joints are frequently affected secondarily by metastasis. Purulent joints are characterized by the sudden onset of the disease and great pain. The disease progresses rapidly and virulently, the destruction of

bone extension and the formation of abscess follows very soon after the attack. This condition of the joint is nothing more or less than a rapid osteomyelitis. In both of these affections a single joint is usually attacked; whereas in joint disease due to rheumatic condition several joints are affected at once. Then we may safely conclude that single joint disease is almost invariably tubercular or purulent. Tubercular and purulent joints are always local and have nothing to do whatever with a general constitutional diseases. Whereas rheumatism, syphilis and other constitutional diseases may produce local joint diseases. But several joints are usually diseased when caused by constitutional conditions.

Undoubtedly these diseases must be preceded by a localized inflammation. Into this area of inflammation are inoculated the germs which produce the destructive changes. That these diseases are a manifestation of a "constitutional taint," I think is incorrect; that it is a localized focus of disease, I believe. To illustrate: Germ life, to grow and produce its destructive changes, must have a soil fit for its reception and nutrition, and it is only within the area of the active process of repair in which large masses of embryonic cell tissues are present that we find such a soil excepting in the lymphatic glands. Unless there is a lesion of an inflammatory nature in any portion of the body, these germs cannot find a foothold for their growth. For example, an incised wound is made, we watch it closely and find that the first process that takes place is an effusion of blood and coagulation; then a rapid wandering of cells into this blood clot occurs, and rapid cell proliferation. These cells rapidly form themselves into line between the cut ends of the tissues for the purpose of repair. Soon, organization takes place, loops of capillaries are thrown out and new tissue is built up. After this, contraction begins to take place; the capillaries are destroyed, the epithelium grows over the wound, and the wound is healed. This, I believe to be the normal process of repair. *This is inflammation,* and this is as normal as the growth of the stag's horn. This reparative inflammation is necessary in all cases where injury has been inflicted. If at any time during this process of repair or normal inflammation, germs are inoculated into this new inflammatory tissue, another condition is at once established. If these germs are streptococci or some one of the pyogenic germs, they

at once seize upon this new inflammatory material, and they with their ptomaines destroy it. In this case inoculation has taken place and we say that the wound has become infected, and disease is the result. *This disease is suppuration.* If the germs of tuberculosis should be inoculated growth takes place immediately, but it is very slow. *No pus is formed from the bacilli of tuberculosis,* but the germs grow and as surely destroy this new inflammatory material as did the germs of suppuration. Then we say that this new inflammatory material has become diseased, that we have a tubercular inoculation or a tubercular focus of disease. *So we see there is a vast difference, as I define it, between inflammation and disease.* In joint disease an injury has been done to the joints, it makes no difference however slight, or from whatever cause. That injury may have been produced by a trauma or embolism; in any case the rapid effort of nature to repair the injury which has been done builds up new inflammatory material, and into this material is inoculated the germs which are floating in the circulation.

Should these germs be pyogenic and the inflammation in the bone, then a very rapid osteomyletis, with the formation of abscess, is almost sure to take place. If, on the contrary, the germs of tuberculosis are floating in the circulation, and they come in contact with this area of normal inflammation, then so surely will the diseased condition be a tubercular disease, which begins insidiously, progresses slowly, and produces destruction by ulceration or caries. If absorption has taken place from the Pyerian patches, in typhoid fever, and inoculation takes place into a focus of new inflammatory material, then we have what is known as the "typhoid joint." After inoculation has taken place with the germs of tuberculosis, the growth in this new inflammatory material is very slow. After a time, the entire new material is destroyed. Just outside of this area of disease a new barrier has been thrown up by nature—a new barrier of inflammatory material. Into this the tubercular germs rapidly grow, and they may destroy this new wall of inflammatory material, and so the normal process of repair goes on just a little in advance of the disease, until after a time the entire joint is destroyed.

Tubercular disease never produces a pus abscess, *per se.* We

all frequently find large tubercular cavities which are filled with tubercular materials, but pus is absent. But just as soon as one of these cavities becomes inoculated with pyogenic germs, then abscesses form immediately, so that it may seem a little heterodox for me to say that abscesses are seldom prevented by any treatment after inoculation has taken place, and that when inoculation with the pyogenic germ takes place into an old focus of tubercular disease, that case will rapidly go on to the formation of abscess in spite of anything that can be done, with an occasional exception, and depending upon the physical condition of the patient. By this I do not mean to say that the proper treatment is to be discouraged, because the sooner the tubercular focus of the disease is done away with, the sooner will the powder magazine be removed from the patient. Hence fixation to allow nature to repair and drainage to get rid of the enemy.

We see, then, that these cases of joint disease are always preceded by a lesion in the bony structures, or soft parts, which lesion is either produced by trauma, embolism, or some other pathological cause, producing an area of inflammation into which inoculation takes place from the germs which are floating in the circulation. The condition is purely local, and has nothing whatever to do with a "constitutional taint." The reason why one child is affected with local tuberculosis, and another is not, is to be found in the condition of the child. That condition is known as struma. *Struma is not a disease; it is a condition*, and I hope that I will never see again printed the terms "strumus joint." The term struma should be used to indicate weakness, and it exists in the ultimate protoplasm of the ultimate cell of the body, and measures the resistance of that protoplasm to the attack of germ life. Scrofula we now know to be tuberculosis, so that "scrofulous joints" have been relegated to the obscurity which they so justly deserve. General tuberculosis takes place from joint disease, as the result of multiple inoculations in different portions of the body.

The pathology of the affection depends, of course, entirely upon the etiology. In discussing the etiology I have touched somewhat upon the pathology, so that can be passed over briefly. It is needless for me to say that the disease is, as a rule, with an

occasional exception, located in the bony structures. As I have already said, I will not enter into the minute pathology of this condition, because "space" will not allow.

How do Pyogenic and Tubercular Germs Enter the Circulation Primarily?—Through the lymphatic system as a rule. A child playing in the back yard of a tenement house, in an atmosphere contaminated by germ life caused by the old woman beating the carpets from an infected room, where an individual has died of tuberculosis or osteomyletis, inhales the spores of the germ.

These spores are immediately absorbed by the lymphatics from the mucous membrane of the pharynx and the trachea, and carried to the neighboring lymphatic glands. The lymphatic glands are rich with cells and are a good soil for the reception and growth of the germs. The cells or phagocytes of the lymphatic glands are at once attacked by the germs and destroyed, until the entire gland is converted into a pus or tubercular cavity, depending upon the kind of germ absorbed. These are the large glands seen in the necks of children and called by the older authors "strumous or scrofulous glands." Ulceration now commences in the gland, burrowing takes place in the direction of least resistance. The gland is surrounded by a vascular net work of veins and arteries. When perforation of the gland takes place from ulceration, its contents may discharge directly into a vein; thus it can be readily seen how the circulation becomes contaminated with germ life from the reservoir which is constantly discharging into it. Now if the child playing in the back yard receives a slight injury of a joint, at once inflammatory action begins at the point of lesion already described. The blood being loaded with germs of infection carries them to the point of injury. The pathogenic germs, finding a fit soil for their reception and growth, attack the normal new inflammatory material and convert it into a *diseased condition*, with a formation of pus or a tubercular abscess. From this point of local infection the pathogenic germs find their way into adjacent tissues, destroying them as they advance and enlarging the diseased area. Should the head of the bone be involved it soon is destroyed, and the disease cavity discharges into the joint, infecting all the tissues involved in the structure of the joint. If the diseased focus is in the soft parts, the joint

becomes infected in the same manner, and the bone is secondarily involved. The entire joint now being involved, the same processes which took place in the lymphatic gland are observed, viz., ulceration, burrowing and the formation of tubercular or pus cavities, together with destruction of all tissues lying in contact with the disease, by infection. Burrowing always takes place in the direction of least resistance, which accounts for abscesses appearing at different points in joints apparently similarly affected.

Before considering the treatment of tubercular and purulent joints, I desire to say a word in regard to rheumatic conditions affecting joints.

Rheumatic joints are always due to a constitutional condition. They are usually multiple and single; a joint is never involved excepting it is preceded by an injury. Therefore the treatment of rheumatic joints requires, in addition to the mechanical and operative, constitutional treatment. Nine times out of ten, allow me to say, when a single joint is involved a rheumatic condition has nothing at all to do with it. The mechanical treatment in rheumatic joints is of just as much importance as in tubercular and purulent joints. In the old man or woman with a rheumatic diathesis is frequently seen a diseased hip, unquestionably rheumatic. Such cases should be immediately put into bed with a weight and pulley varying from twelve to twenty pounds, after which follow the methods employed in tubercular and purulent joints. (See mechanical treatment.)

In all rheumatic cases the alkaline treatment is prescribed, which frequently is very disappointing. During the past year, in all cases of rheumatic joints, I have been using a new salt of lithia, combined with alkalies, known as "thialion." This is a laxative salt, and when used carefully and faithfully has proved in my hands one of the best agents in these rheumatic affections.

My method of administration is as follows: I direct that a teaspoonful of this granulated salt be dissolved in a cup of hot water and drunk as warm as possible (in acute cases), taken every three hours until very free catharsis is produced.

This is accomplished by thialion acting very freely on the liver, producing a marked flow of bile into the intestines, as well as increasing the peristaltic action of the bowels.

After this result is produced the dose is then lessened to twice a day until the urine approaches the point of alkalinity, which generally takes place about the third day, then once a day only until cure is effected.

In chronic cases a teaspoonful taken in the same medium morning and night, always before meals, for a week and then once a day on rising for a week longer, produces the happiest results.

(*To be Continued in January Number.*)

Selections.

PATENTING MEDICAL DISCOVERIES.—In a most interesting article with this title, in the October number of *Medicine*, written by Prof. Jas. G. Kiernan, M.D., of Chicago, whose name has both a national and international recognition, which we regret most exceedingly that we cannot reproduce in full; but a letter to the publisher, Wm. Warner, of Detroit, Mich., enclosing twenty-five cents, will secure this valuable number of our esteemed contemporary, and will be money well spent—concludes as follows:

“The early stages of discoveries growing out of the germ theory when it was finally forced into practical acceptance by the investigations of Pasteur and Tyndall present much the same mingled picture of unselfishness and greed as that of anesthesia. The work of Pasteur was given freely to the world—an example which has honorably been followed by disciples of Pasteur like Roux and others. All of surgical antisepsis comprehended under the general term of Listerism was freely given to suffering humanity by Lister and his followers.

When, however, German medical science is approached in this particular, a number of dark clouds appear. The conceited, intolerant, quackish secrecy of Koch anent tuberculin found a fitting apotheosis in the patent lately granted after five successive refusals to Behring by the United States Patent Office.

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The claim of Behring as to priority is a demonstrable absurdity in view of the fact that careful investigation by the Academy of Medicine demonstrated that so far as priority concerned, Roux and Behring were contemporaneous.

Behring claims as his invention: (1) A process "of preparing diphtheria antitoxin, which consists in inoculating horses or other animals capable of being infected with diphtheria repeated doses of diphtheria poison or living diphtheria bacilli gradually increasing quantity and strength so as to immunize them and form in the blood a counter-poison for destroying the poison secreted by said bacilli, drawing off the blood from the animals, separating the serum from the blood-corpuscles and concentrating the former for use substantially as set forth; (2) As a new substance, diphtheria antitoxin, consisting of concentrated serum of the blood of animals treated with diphtheria poison and having the characteristic of immunizing animals against infection with diphtheria, and curing them artificially infected with diphtheria, said serum containing counter-poison having the property of destroying the poison secreted by the diphtheria bacilli substantially as set forth."

The first claim is mendacious since, as the *Medical Age* pointed out, Sewall had immunized pigeons against the poison of rattlesnakes in 1887. Both Sewall's procedures and the preceding ones of Pasteur against chicken cholera and anthrax were based on the principles adopted in inoculation and vaccination. It was an illustration once more of the law of scientific progress enunciated by Shelley in "*Prometheus Unbound*," that

Thought by thought is piled, till some great truth
Is loosened and the nations echo round.

In 1887 Roux and Chamberland rendered animals immune to malignant edema. In 1890 experiments on the immunization of animals against diphtheria and tetanus were made by Behring, Kitasato and Frankel. In 1894 the serum treatment was first practically demonstrated to be of value by Roux, Arcal and latterly Behring.

It is difficult to see how any court will hold this patent. The outcome in the other matter* should assure the prof-

[*The discovery of anesthesia, forcibly and graphically alluded to in a trenchant pen in the preceding part of this article.—*Ed. S. P.*]

that this latter expression of greed will fall before medical opinion, since this is certain to be assisted by legal procedures adopted by manufacturing firms that have successfully resisted similar attempts, as witness the Tonga litigation of 1881-2. Here an attempt to copyright failed completely on some of the grounds which will be operative in the antitoxin matter. The five successive rejections of Behring's application for a patent significantly demonstrate, moreover, on what flimsy technical grounds the patent was finally granted. There is no very great reason to fear that this attempt to blackmail suffering in the interest of a foreign manufacturing firm will prove more than temporarily successful in the United States. Such patents are opposed to the advance of science, the theory on which alone the Constitution of the United States has given Congress power to establish the patent office. The long unhindered manufacture of diphtheria antitoxin constitutes a precedent against which greed must break. The German medical profession has, however, a duty in the matter like that painful one which the American medical profession so successfully and sternly performed in the cases of Morton and Jackson. Had the plague speck of quackery visible in Koch been stamped out, the Behring brutality would never have occurred. Despite the blow given to the influence of the German medical profession by the appointment of an "anti-fat" quack to a professorship at Bismark's behest, it has still sufficient power to stamp with efficient disapproval the growing tendency among German medical men to convert the "Republic of Science" into a commercial oligarchy for the benefit of plutocrats at the expense of suffering humanity.—*Medicine.*

THE CHEMICAL RELATIONS OF REMEDIES IN SCIENTIFIC THERAPEUTICS.—Dr. John V. Shoemaker (*Journal of the American Medical Association*, September 24th) says: "As the active principle of all plants have not yet been isolated, it need be no wonder that in a new field, and dealing with complex animal tissues, this problem, for most substances, remains unsolved. A beginning, however, has been made. The efficacy of orchitic extract depends upon the presence of an organic crystalline

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substance called spermin, which exists in combination with hydrochloric acid. The active principle of the thyroid gland is believed to be the substance isolated under the name of thyrin. In the same way the antitoxins, in so far as they have been discovered, may be looked upon as the active principles of the immunizing or curative serums. Schaefer and Oliver obtained from the medullary portion of the suprarenal body an organic principle which has a powerful action upon the voluntary muscles and peripheral arteries. The serums obtained from animals rendered artificially immune contain antitoxins and have proved of more value than those from animals naturally immune to certain maladies. The typical instance of success in this form of therapy is diphtheria antitoxin. The wonderful reduction in the mortality from diphtheria which this preparation has effected cannot be gainsaid. Every physician should seriously debate in his own mind whether he has done his duty in a case of diphtheria, if he has neglected to take advantage of the immunizing properties of diphtheria antitoxin.

New York Medical Record.

DRUMMING FOR THE QUACKS AT HOT SPRINGS.—A special agent of the department of the interior has been making investigation of the condition of affairs at the Hot Springs reservation in Arkansas, and reports the existence of a number of abuses. The report says: "By far the most serious question in connection with Hot Springs affairs, and the one which menaces the life and health of persons who go there seeking treatment, is the practice of drumming. There are drummers for three different businesses at Hot Springs, viz., drummers for bath-houses, drummers for hotels and boarding-houses, and drummers for doctors. The most harmful thing, however, to Hot Springs is the reason that it is the most dangerous thing for persons who go there for treatment, is the present system of doctor drummers. There are a great many doctors in Hot Springs who are notorious in the matter of having drummers for their business. A custom about this is that strangers are met on the trains at towns more than one hundred miles away from Hot Springs by drummers for these doctors. The drummers make the arrangements

before taking the victim to the doctor, to ascertain relatively his financial standing, then to advise the doctor as to this matter, and the man is duly fleeced." It is said that two United States Senators were among the victims last winter. The interior department is seeking for some way to put a stop to these abuses, but finds itself hampered by the fact that the reservation is under the judicial control of the State of Arkansas, and it is said that the State laws have many loopholes through which these irregular practitioners escape. In order to stop the drumming, the department proposes the adoption of a regulation providing that no bathhouse receiving water from the Hot Springs reservation shall permit any person to bathe therein who has not a certificate from a reputable physician who does not resort to drumming. The superintendent of the reservation, or a board of surgeons, to be appointed by the Secretary of the Interior, will be required to certify to the professional standing of physicians prescribing baths at Hot Springs, and no one who is known to drum for custom will get a certificate which will entitle his patients to baths at the bathhouses.—*New York Medical Record.*

ASEPTIC CATHETERISM.—Dr. C. Mansell Moullin has given an interesting and practical paper to the London *Lancet*, of September 10, on the subject of urinary fever at the beginning of catheter life and of aseptic catheterism. He says of aseptic catheterism that it is one of the problems of modern surgery. He has been called upon to deal with it especially in cases of which there has been a large amount of residual urine. The following are the essential features of Dr. Moullin's very successful measures: All instruments must be disinfected first by boiling. The hands, the prepuce and the skin of the penis must be cleansed as thoroughly with soap and water as if a surgical operation were going to be performed, and then sponged over with a solution of corrosive sublimate, 1-5000. The glands of the meatus require especial care. An irrigating catheter is then introduced into the fossa navicularis, and this part of the canal is thoroughly washed out from behind with boric acid. Then the catheter is pushed on into the deep part and the process repeated. Finally, Melchior's double catheter is introduced

and the urine drawn off. In this way it is possible to obtain a very high degree of asepticity. When catheters have to be passed at frequent intervals, the disinfection of the hands, penis and front part of the urethra will manifestly be never carried out at each time. At the outset it will only be done night and morning, and often one has to be content if it is done thoroughly once a day. But catheters can be kept clean. Those made for me, as smooth and polished on the inside surface as they are on outer, will stand boiling day after day (if they are kept straight while in the boiling water and drained afterward), and continued immersion in boric acid without injury. Each patient is provided with two glass catheter cases. One of these is filled with boric acid lotion for instruments that have been used; the other, provided with a rubber cork as well as a metal cap, is dry and aseptic. These cases are so arranged that they can be hung up in the patient's wardrobe, out of sight and out of the dust. No catheter is used more than once a day. As soon as the catheter is withdrawn from the urethra it is dropped into the case filled with boric acid solution and left there. Once a day all the catheters are taken out, boiled for five minutes, and placed in a dry case until required. The plan is not perfect and I have no doubt is capable of improvement, but it works fairly well with an intelligent private patient who can be made to understand the necessity of observing strict precautions. Unfortunately they are not all intelligent, and in the case of a hospital outpatient such a complicated plan is out of the question. The best that can be done is to start such people as well as possible and hope that by degrees they will acquire a certain amount of immunity against the toxins they are bound to absorb. There is a little evidence to show that a certain degree of immunity may be acquired, but I am very skeptic as to its ever being sufficient in the face of the virulent growth, or when the bacterium coli is assisted by other germs, such as the streptococcus and the proteus.—*Journal of Am. Med. Association.*

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

HYDROGEN PEROXIDE IN THE TREATMENT OF PUERPERAL SEPSIS.—Two principles of fundamental importance concerning puerperal sepsis are, first, that in these days of advanced asepsis puerperal sepsis should not ordinarily occur, and, second, if it does occur, it should be treated aseptically rather than antiseptically. An exception to the first principle is found in such cases as are autogenetic—a class of cases which, although their existence is denied by competent authority, the writer is convinced are sometimes encountered. These unpreventable ones are exemplified by instances of putrefaction and subsequent sepsis occurring in women, in whose products of conception life has been extinct for several weeks.

When sepsis results from external causes, it is because the accoucheur or nurse has failed to secure surgical cleanliness. This, in most instances, is highly reprehensible. It is true that in the humble walks of life poverty, filth and ignorance are powerful factors in the causation of sepsis, and frequently triumph in spite of the physician's most watchful care. Elevation of temperature, not dependent upon some easily removable or transient causes, such as constipation or the first secretion of milk, but associated with scanty, offensive or absent lochia, is the invariable indication that infection has taken place, and that prompt clearing of the uterine cavity is imperative.

The writer's method of treatment in these cases is to first irrigate the interior of the uterus with a normal salt solution, remove secundines or other retained foreign materials by means of the sharp curette, then again irrigate freely with salt solution. After thoroughly drying with aseptic cotton or gauze, hydrogen peroxide* is applied to the uterine cavity by means of a small intra-uterine syringe, or an applicator upon which is wound a piece of aseptic gauze or absorbent cotton saturated with the agent. The foam should be removed, and fresh applications made until the cessation of foaming gives positive evidence that the uterine cavity has been thoroughly cleansed. This procedure should be practiced daily until the temperature falls to normal and remains at that point. This, in the writer's experi-

[* If you want definite and reliable results, do not fail to use Marchand's preparation.—ED. S. P.]

ence, always occurs within a week. The following cases are illustrative of the efficacy of this mode of treatment:

Case I.—Mrs. H., aged 40, in her seventh labor, as the result of rigid cervix and violent uterine contractions, had rupture of the uterus in its long diameter, involving four-fifths of the thickness of the wall. Mural abscess and sepsis followed, associated with profuse, offensive lochia, the color of dirty dish-water. On the fifth day the uterus was above the pubis and spongy. The ordinarily recommended treatment was practised without improvement, but on the eighth day the method above detailed, with hydrogen peroxide, etc., was instituted, with the result that the temperature immediately fell to the normal point and the patient made a good recovery.

Case II.—Mrs. D., delivered of her third child two months prematurely. Baby much emaciated in consequence of interference with nutrition from placental degeneration, lived twelve hours. Within the first five days the temperature ranged from 101° to 105° F., and the usual concomitant symptoms of sepsis were present. On the sixth day after delivery, curettage, with free douchings of hot salt solution, was practiced, and the usual application of hydrogen peroxide was made. Temperature taken half-hour after treatment showed a fall of 1°, while on the seventh day it was normal. From this date on convalescence was uninterrupted, and the patient was out of bed as early as though no complication had occurred.

Case III.—Mrs. S., after rapid delivery, did well for nine days, when the usual symptoms of puerperal sepsis appeared, due in all probability to her wretched surroundings, lack of proper nursing, etc. The treatment above detailed was exhibited, the temperature promptly returned to normal, and there was speedy and satisfactory convalescence.

The *rationale* of the treatment by hydrogen peroxide is that this agent causes a rapid oxidation or super-oxidation of effete organic matter, thus completing in a very short time what it takes the unassisted process of nature a dangerously long period to accomplish. It initiates, but infinitely improves and accelerates, the efforts of the human organism to remove offending foreign materials. The advantage of this agent over mercuric chloride, carbolic acid and other agents that act chemically, is

that it is non-corrosive and non-destructive of healthy tissue. Furthermore, the results obtained from the use of hydrogen peroxide are vastly superior to those obtained by the use of any other agent, so that the writer now approaches the treatment of puerperal sepsis with less fear of unfortunate results than he has ever before experienced.—*Jno. N. Upshur, M.D., in Va. Med. Semi-Monthly.*

SIR WILLIAM GULL'S DIRECTIONS CONCERNING TYPHOID FEVER.—The *Albany Medical Annals* for October quotes the following directions of Sir William Gull to the attendants of the Prince of Wales when suffering from typhoid more than twenty-five years ago, as being as applicable to-day as then, and says that they cannot be too often reiterated: 1. Typhoid is a disease which runs a more or less definite course. It cannot be stopped or cured simply by medicine. 2. The chief thing to be done at the outset of an attack is to send the patient to bed so as to save strength from the beginning. No strong purgative medicines are desirable. 4. As the fever develops and the strength grows less, light food should be given at short intervals. This must be directed medically, but in general it may be said that the amount required is that which induces repose and sleep. 5. The bowels may be left to themselves. If unmoved for twenty-four or thirty-six hours, a lavement of warm water may be necessary. 6. The restlessness or wakefulness in fever is best remedied by the careful giving of wine or spirits with the food or in water. Sedatives such as opium are inadmissible—most injurious. 7. The bedroom should be kept at a temperature of 62° to 64°. 8. Great care is necessary to keep the bed clean and sweet. This is most easily done by having in the same room a second bed, to which the patient can be removed for two or three hours daily, while the other is thoroughly aired and the linen changed. 9. All fatigue is to be sedulously avoided. No visitors should be admitted, and no other person than a nurse and one attendant to help her. 10. The patient should never be left unattended for a moment, as in the delirium of fever he might jump from bed and injure himself. 11. As to medicines and the treatment of complications, the immediate medical at-

tendant must be responsible. 12. As the discharges from the bowels in typhoid fever are a source of contagion, it is desirable that before being thrown down the closet they should be largely mixed with some disinfectant. On the same principle the strictest cleanliness must be observed in the sick room. 13. There is no reason to believe that typhoid fever is contagious from individual to individual in the ordinary way. The largest experience shows that it does not extend like an ordinary contagious disease to nurses or others attending upon patients suffering under the disease.—*New York Medical Journal.*

THE DOCTOR.—A doctor should be a man of the widest culture, for no science is so deeply indebted to all sources of learning for its truths and forms of expressing them as is medicine. It draws its magic from the hidden mysteries of nature, simulates protean life, consorts death's phenomena familiarly; through metamorphosis with easy, royal, grace, it goes to share the triumphs of final forms. Reason and philosophy are its friends and counselors, experience and history its prophets, and antiquity opens her darkly clad bosom to reveal an imperial wardrobe for the priests, cup-bearers, and the whole retinue of this science. All nature is the realm of medicine. The doctor should know his realm; should know anatomy as the carpenter knows the timbers in a house he builds; he should know physiology as the engineer knows the machine he directs; he should know drugs, their chemistry, physiological action, etc., as the alchemist knows the reagents before him; be as ready in formulating as the pharmacist is supposed to be in compounding his prescriptions, or the housewife in preparing the simplest diet. He should be as acute in detecting pathology as the miller in detecting disease in grain. In a word, he should familiarize himself with medicine as a woman knows her domestic circle and its round of duties.

To do this he should be familiar wrth the terms of his profession, know every word, phase, theory—all facts. He must read, remember, think, know. Know man, Nature his mother, her laws, her rewards for obedience, her penalties for infraction; the sum of violations, in false customs, artificial habits,

and sham obedience, and their pernicious offspring, disease—the constant attendant of vice and ignorance, the arch-enemies of human physical ease, as sin is to spiritual ease; each begets disease, chaos. Medicine comes as a mediator, and the doctor is her priest and interpreter; his end is amelioration, palliation, relief. By his knowledge many are to be healed. How tireless, then, ought the doctor to be! With ever relentless toil he should strive to master the whole realm of knowledge for the power it would give. The task means a lifetime of toil, but the end justifies the means. Every power of mind, every faculty, and conscience demand it! The days of the charlatan are numbered and finished. Medicine is a learned science, and ignorance has no place beneath its mantle, nor elsewhere, ere long; for with our common schools, high schools, academies, colleges and universities, we should be a nation of savants; and the holiest fillets of learning, science and wisdom are to fall upon the shoulders of the doctors. He who "spoke as never man spoke" nearly twenty centuries since proclaimed in the parable of the Samaritan the principles of antiseptic medicine, and chose a man, *a doctor who "had perfect knowledge of all things,"* to teach it to the profession and the world. "And why should we be less than he?"—*Ernest L. Stephens in Texas Courier-Record of Medicine.*

"THE ABUSE OF ERGOT IN THE TREATMENT OF HEMORRAGE" was the title of a paper read by Dr. Ferdinand A. Packard at a meeting of the College of Physicians, held in Philadelphia, Nov. 2d, ult. He contended that the administration of ergot being productive of an increase in blood-pressure, which it is desirable to avoid, the exhibition of the drug is contraindicated in all varieties of hemorrhage, with the possible exception of the postpartum variety. Attention should rather be directed toward the administration of remedies such as tend to favor coagulation of the blood, as calcium chlorid. etc., the mechanical favoring of a clot and its non-disturbance, particularly by rest, etc. In the discussion, Dr. E. W. Watson coincided with Dr. Packard, particularly with respect to pulmonary hemorrhages and hemorrhages from eroded vessels. He thought,

however, that in cases of capillary hemorrhage, as for instance in epistaxis, ergot is of great service locally and is also indicated internally. Dr. H. A. Hare said that the remedy is distinctly indicated in case of capillary hemorrhage, but that it can do no good in hemorrhage from a larger vessel. Dr. Packard spoke of the difficulty of distinguishing between arterial and capillary hemorrhage unless the bleeding point could be inspected.—*Philadelphia Medical Journal.*

FEMALE DISEASES AND INSANITY.—It is perhaps the inherent vanity in the race that keeps it alive. Were every man to look at himself with the strictly impartial view of his neighbor, his self-appreciation would ooze out, his upwelling ideas would leak away, and his ambitions would sink to the low levels of other men's esteem.

Ah, no! it would not do to stand on the street corners and smite our breasts as miserable sinners. It is far better to congregate in high places, in clubs, in medical societies, and in the editorial corners of our journals, and unite our voices in thanks that we are not as other men are. Then our fellow-citizens may see how wise are the tenets of our specialty and how false are other men's.

Who but the greedy, grabbing gynaecologist would insist that it is disease of the ovaries or false position of the uterus that causes the trouble, when it is plain that the nerves are the seat of the disorder? And why should not the triumphant neurologists congregate and rejoice when they see the value of their claims recognized and the fees running in their direction? Witness the recent appreciative abstract of the Italian observers, Angelucci and Pieraccini, in their international inquiry on the relationships of diseases of women and nervous disorders.

One of the most pronounced articles illustrating the general point in question, and one which should receive the attention of both neurologists and gynaecologists, has recently appeared in the *American Journal of Insanity*, vol. iv., 1898, No. 1, July, entitled "Surgery Among the Insane in Canada," by R. M. Bucke, M. D., President of the Medico-Psychological Association.

He has been led to believe that there is a great deal of pelvic disease in female lunatics, and that such disease has often a causative relation to the mental alienation existing. His investigations in the London (Canada) Asylum, the examinations being made by a competent gynaecologist of that city, show that of 132 patients there was organic disease of the generative organs in 122, only 10 being free. Of the 122 cases of organic disease, 109 had been operated upon. In the report of the pathological conditions operated upon, many minor troubles were mentioned. His tables included: menorrhagia, 14; endometritis of various grades, 62; hypertrophied cervices, 25; lacerated cervices, 34; cystic cervices, 19; polypi of the cervix, 3; fibroids, 7; epithelioma and sarcoma, each 1; retroversions, 33; procidentia, 5; ovarian tumors, 8; perineal injuries, 22; and fistulæ, 2.

The results in the 109 cases were:

(1) As regards bodily condition. Three died from the operations and all of the rest were improved.

(2) With reference to the mental condition. In 39 cases the patients recovered from their insanities, in 32 cases there was marked improvement, and in 35 there were no changes for the better. The author's conclusions, in view of the almost chimerical results, are worthy of reproduction. "Should it be once conceded by those who have charge of the insane, by those men to whom the general profession looks for guidance in these matters, that utero-ovarian diseases are capable of acting as causes of insanity, and that removal of these will in some cases result in the disappearance of the mental disturbance, almost at once it would happen that many insane women, instead of being sent to an asylum, would be operated upon and relieved at home. More than that, if the connection in question were admitted, these women would not be allowed to remain insane at home for months, and often years, as happens now, but would be examined, operated upon, and relieved within a few weeks of the appearance of the insanity. More even than that, when the eyes of the general profession are fully opened upon this subject, symptoms of subinvolution, endometritis, or laceration of the cervix will be watched for after childbirth, and if present be at once relieved; and the women who might have become insane in consequence of one or other of these lesions will remain sane."

The Italian compilers above mentioned reported, as the result of an international inquiry, hearing from large numbers of both gynaecologists and neurologists, that the relationships in question of pelvic disease and insanity were *nil*. And here we have this roseate picture!—*N. Y. Medical Record*.

THE TREATMENT AND COMPLICATIONS OF CHOREA.—1. The frequency with which nervous and other symptoms are met with in chorea places beyond doubt their influence as etiological factors.

2. Hysteria appears to exercise a marked influence on the onset of chorea, so much so that some authors have regarded the latter as a form of it.

3. According to certain writers who have remarked the close connection between chorea and the infectious diseases common to childhood, it would seem possible that the former is but a secondary affection, the sequel of these virulent diseases.

4. On the one hand, the close relation between chorea and rheumatism, so long admitted by clinicians of the highest standing, and, on the other, the bacteriological nature of rheumatism as proved by Achalme, Thiroloix, Triboulet, Coyon and Ladoc, lead me to see in chorea only the cerebro-medullary tendency of a rheumatic infection developed in a hysterical or neurasthenic temperament.

5. Of the numerous remedies to which resort has been made in the treatment of chorea, I give the preference to those derived from the aromatic plants, such as antipyrin (the proper dose of which I have determined), exalgene, asaprol and analgene, whose curative action in the treatment of chorea I was the first to demonstrate.

6. While these remedies have been of undeniable efficacy in the treatment of rheumatism, it is equally true that under their action all choreic manifestations disappear within the space of from eighteen to fifty days.

6. My personal observations have assured me of the successful outcome of this treatment, at least in the case of children whose subsequent history I have been able to follow.—*Conclusion of a paper in Pediatrics of October 15, 1898, by Dr. Moncorvo, of Rio Janeiro, Brazil.*

TREATMENT OF ECTOPIC GESTATION.—Dr. H. W. Longyear (*Annals of Gynaecology and Pediatrics*) summarizes as follows: (1) In all cases of intraperitoneal rupture, operate as soon as the diagnosis is made; do not wait for reaction to occur. Support such patients before and during the operation by applications of heat to the extremities and back, transfusions of decinormal saline solution, rectal use of beef tea and saline solution, and strychnine, nitroglycerine, and digitalis by hypodermic injection. (2) If the hemorrhagic blood cannot be quickly removed, let it alone and use drainage. Do not flush the abdominal cavity to remove blood. The peritoneum will absorb the blood with much less danger than is caused by such manipulation. (3) Use silkworm gut *en masse* to close the abdominal wound, in case there has been great loss of blood, as the buried animal suture is not readily absorbed when such depletion has occurred. (4) Extraperitoneal haematocele is usually self-limiting and will almost always result in the death of the foetus and the recovery of the patient. (5) In cases that go on to full term, operate at end of pregnancy to save the child. Operate through the abdomen, drain through the vagina, and leave the placenta to come away through disintegration. (6) Electricity should be used only in cases so situated as to preclude the possibility of securing proper surgical treatment.

ENLARGED CERVICAL GLANDS.—When a patient comes to you with enlarged lymph nodes of the neck, be sure to examine the throat most carefully. If the patient is a child, remember that a very common cause of lymph-node inflammation is the presence of hypertrophied tonsils or of adenoid vegetations. In an individual of middle age, examine any hypertrophy critically, bearing in mind the possibility of neoplasm.—*International Journal of Surgery.*

SANDER & SONS' EUCALYPTOL EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Greifswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

TAXIS AND MODE OF INCISION IN STRANGULATED FEMORAL HERNIA.—In strangulated femoral hernia the directions laid down by the older authors as to the mode of applying taxis counts for positively nothing; nay, they are worse than useless, for their employment implies that manipulation is reasonably safe and certain, while experience disproves both; and more, by this unsurgical procedure the intestine is often irretrievably damaged beyond repair by the crushing and tearing of the fingers.

In former times the rules for incising or dividing the seat of strangulation were laid down with great fulness, and a special probe-pointed bistoury was devised for the blind moping in the dark. The operator always had a terrible dread of hemorrhage.

My own experience with this and all other types of strangulation emphatically induces me to advise the rejection of protracted taxis, baths and antispasmodics. The use of pulmonary anæsthetics in taxis should be strictly proscribed. Let us always cut from the outside in, and then if we divide one or more small vessels, close them, as we would in any other operation. But let us invariably open the sac, freely divide all constriction, draw down and thoroughly free the intestine before we reduce it.

—*T. H. Manley, M.D., in Med. Times and Register.*

CHILBLAINS.—C. Binz (*Cincinnati Lancet-Clinic*) thinks that only chemicals capable of penetrating the epidermis can be expected to have any effect upon chilblains. To these belong chlorine in the form of chlorinated lime. He has found that one part of this, mixed with nine parts of paraffin ointment, rubbed into the inflamed parts for five minutes every night, will cause the pain and swelling to disappear in the course of a week. After each inunction the foot is covered with a very thick bandage. It is important that the ointment should have a very strong odor of chlorine, and he points out that the chlorinated lime of shops has generally parted with its free chlorine. Another point of importance is that the drug should be mixed only with paraffin ointment, for Binz has found that when mixed with lard, and especially with lanolin, it gives up its chlorine too quickly. The ointment is useful only so long as it gives out a decided smell of chlorine.—*Maryland Med. Journal,*

DROPSY—ITS TREATMENT.—Prof. Tyson (*Ther. Gas.*) considers absolute rest, limitation of the amount of fluid ingested, and free movement of the bowels, the most important means in the treatment of obstinate dropsy. The bowels are acted upon by Rochelle salts in doses of one half to one ounce in about four ounces of water. This may be preceded by a moderate dose of calomel. Digitalis combined with squills and calomel is very useful. Among the newer drugs the author finds theobromine most effectual in the dose of 45 grains per diem. This remedy is given dry on the tongue and washed down by a draught of water. Theobromine acts, the writer thinks, better than diuretin, which is said to consist of equal molecules of sodium salicylate and a compound of theobromine and soda. Next after theobromine comes sparteine sulphate, the active principle of broom. The dose should be from a quarter to two grains in twenty-four hours. Baths administered after the Manheim plan are a valuable auxiliary, so is massage, which seems to aid in the absorption of the effused liquid.—*S. in Am. Medico-Surg. Bulletin.*

HEMORRHOIDS.—In operating for hemorrhoids by clamp and cautery, be sure you clamp the tissues in radiating folds so that the eschars shall be to the anal center as the spokes of a wheel to the hub. Subsequent stricture is thus avoided. Do not include too much tissue, for the cautery often burns deeper than one might expect. Only the pile-bearing mucous membrane should be burned; if it is desirable to remove the external or skin piles, it may be done by ligation, previously incising through the skin to avoid the pain of the constricting ligature.—*International Journal of Surgery.*

GOOD ADVICE.—In making daily visits on a fever patient, afternoon calls are best for doctor and patient, because fevers are worse from noon until midnight and the doctor's presence is of most interest when symptoms assume the most serious aspect. Visits at about the same hour each day afford us valuable comparisons in determining the nature and tendency of the disease.
—*Am. Med. Compend.*

EDITORIAL.

Editorial.

MIDDLE TENNESSEE MEDICAL ASSOCIATION

The ninth annual meeting was called to order in the room of the Tulane hotel, in this city, Thursday morning, Nov. 1. Chairman of the Committee of Arrangements, Dr. M. C. quite a goodly number of resident and visiting members being present. Among those from adjacent towns may be mentioned Cowan, of Tullahoma, one of the organic members, an ex-prisoner who has been recently most fittingly and appropriately honored as the first President of the Association of Medical Officers of Army and Navy of the Confederacy; Dr. S. T. Hardison, of Dr. J. B. Murfree, of Murfreesboro; Drs. C. M. Lovell and King, of Dickson; Dr. A. J. Swaney, of Gallatin; Drs. W. L. and brother, of Williamsport; Dr. F. B. Reagor, of Flat Creek; W. Moody, of Shelbyville; Dr. J. S. Edwards, of Erin; Dr. E. R. Ridings, of Fayetteville; Dr. E. W. Read, of Blackman; Dr. E. Normandy; Dr. W. J. Jolly, of McMinnville; Dr. K. S. Howdyville; Dr. S. Thach, of Decherd; Dr. G. White, of Chapman; J. S. White, of Franklin; besides quite a number of others, physicians of Nashville putting in an appearance, some for the first time, others continuing throughout the session.

After prayer by Rev. Jas. I. Vance, and the report of the Committee of Arrangements, quite a number of new members were elected by recommendation of the Committee on Credentials. The President, Dr. E. W. Ridings, of Decherd, announced that the reading of papers and discussion was the next order of business.

The first paper was an excellent one by Dr. L. L. Shedd on the Treatment of Acute Croupous Pneumonia, in which he deprecated the use of the lancet, blisters and depressant remedies, advocating the use of stimulants locally, strychnia, alcohol, good nursing and diet.

In the discussion, Dr. G. P. Edwards concurred with the author in the use of stimulants to maintain heart's action, and eliminants. He said that the disease could not be aborted.

Dr. J. B. Cowan raised the question if it is a microbic disease. Dr. Shedd said that diplococci exist in a healthy lung and wait for suitable condition to multiply and cause disease. He commended the paper, and had used extracts, strychnia and alcohol with most satisfactory results.

Dr. A. J. Swaney asserted that the disease could be aborted by the use of stimulants suited to certain cases only. Advocate of the lancet, blisters and depressant remedies, he said that they would suit all cases. Blisters were harmful in early stages of the disease, but in certain conditions were invaluable. The mortality rate, he said, was greater than forty years ago.

Dr. W. K. Shedd had very little respect for statistics, and could not be induced to support anything. He had treated 125 cases, with four deaths, and had never bled or blistered. Every inflammation is microbic. Reparative were different from inflammatory. His cases were in the country, and as a rule were robust;

lieved would have been made worse by despoliative action. Alcohol was not a stimulant, but acted here as a sedative, or possibly developed an antitoxine. Opiates would but add to the mortality, as would tart. antimony, depressants and blisters. He stated that the mortality in Nashville had, only a year or so ago, reached 47 per cent. The patient must be treated, not the disease. Nature will cure the former if you will properly care for the latter.

Dr. G. C. Savage questioned the statement as to the mortality in Nashville. For the cure of the disease it was necessary to develope something that would destroy or prevent the action of the microbe. Alcohol would possibly put them to sleep—stupefy them—chlorine would kill them. Had used blisters when in general practice twenty years ago, with good effect. Thought they had been abused. They should be produced quickly and quickly healed—they would lessen the amount of plastic exudate or effused material. The effusion consists of serum and plasmin. Jaborandi and potas. iodide would promote their absorption.

The discussion was closed by Dr. L. L. Sheddan in a few remarks advocating his views.

Dr. J. S. Edwards read a paper on "Difficult Dentition in Children, with a Plea for the Use of the Gum Lancet."

Dr. S. T. Hardison concurred with the essayist.

Dr. W. K. Sheddan stated that pathological conditions from the eruption of teeth were rare. If close investigation was made another cause, generally an error of digestion, would be found at the bottom of troubles which from ignorance were attributed to dentition. Had not lanced a child's gum in ten years.

The discussion was closed in a few brief remarks by the essayist.

The next paper was on "Chronic Pleurisy," by Dr. F. B. Reagor.

In the discussion, Dr. J. B. Murfree said that it was an important disease, but does not occur as often as one would believe from the statements made by most authors; however, cases did occur that were overlooked, and the pathological condition attributed to other causes. Pus in the pleura was a serious condition, and demanded immediate relief by surgical procedures. A serous effusion can be relieved by sorbafacients in many instances, but would be aided by aspiration. When pus exists, a free opening should be made. Would not aspirate in any case unless prepared to do a more complete operation, which might be necessary, such as a thoracotomy with irrigation and drainage. It is sometimes necessary to remove a portion of one or more ribs, wash out the pleural sac and pack with gauze.

Dr. J. A. Witherspoon said that while the disease was rare, it existed more often than it was detected. It frequently exists in tuberculosis of the lungs. He doubts the existence of idiopathic pleurisy, but it might possibly be due to exposure to cold, but most always the result of a streptococcic or other bacterial infection.

Dr. _____ said that the physical signs of serous and purulent ef-

fusion were similar, but that the rational symptoms would differ materially. The constitutional symptoms in most cases would serve to differentiate. In doubt, would use the hypodermic needle to clear up the diagnosis. If sepsis resulted therefrom, it was the fault of the doctor.

Dr. W. K. Sheddan said that aspiration was not the proper method for treating even a serous effusion; it was a cowardly procedure. Simple thoracotomy seldom relieved an empyema. Resection of two or more ribs was the true method. Estlander's or Schinde's operation was advocated.

Dr. J. B. Murfree said that even with greatest care the use of the hypodermic needle or aspirator may result in sepsis. He thought Dr. Sheddan extreme in his views.

Dr. Reagor closed the discussion,

Dr. Jas. S. White read a brief paper on "The Use of Antidiphtheritic Serum in Membranous Croup, with Report of a Case," in which he used 500 units of Parke, Davis & Co.'s serum, and on the next day 1,000 units, the patient being much improved. Several days later, the patient becoming worse, 1,500 units, and recovery complete, the child being quite well at this date—four weeks after the attack.

Dr. W. A. Atchison advocated the use of the serum.

Dr. J. A. Witherspoon stated that the Loeffler bacillus and the streptococcus were not related. Membranous croup can exist without the Loeffler bacillus. He would not accept the theory of the unity of these two diseases unless the Loeffler bacillus as well as the streptococcus could be demonstrated. While endorsing the use of antitoxin in primary diphtheritic infection, would not use it after streptococci had developed.

Dr. J. B. Murfree said that he treated membranous croup with Parke, Davis & Co.'s antitoxin successfully. It was the only reliable remedy. He believed that membranous croup and laryngeal diphtheria were identical. The antitoxin was the best remedy for diphtheria. He reported a case existing for one week, where he used 2,000 units in one day, and the same amount on a succeeding day, with perfect recovery.

Dr. J. B. Cowan asked, "What is the physiological action of antitoxine?"

Dr. W. K. Sheddan did not believe in the identity of diphtheria and croup. Did not believe that the mortality in diphtheria had been lessened by antitoxin. Each epidemic and each locality had its own mortality, some high, some low.

Dr. S. S. Crockett: "How many cases of croup get well after tracheotomy?"

Dr. Sheddan: "Seventy-five percent."

Dr. Crockett commended the paper and the practice of the essayist. He had not seen a case of croup relieved by antitoxin. However, he had only seen it used in two cases, both of whom died, the remedy not having been used until after at least the fifth day of the disease. He had used it in fifteen cases of diphtheria, all recovered. He believed the antitoxin

produced an immunity for a short time—it prevented the development of the bacillus, either by destroying it or rendering the system sterile to its growth. He believed that membranous croup and diphtheria were identical.

Dr. W. A. Atchison wanted to know, if they are the same, why is croup non-contagious, non-infectious, and diphtheria is? Why does croup occur in isolated cases and diphtheria in epidemics?

Dr. Coston made some remarks in regard to their identity.

Dr. Witherspoon said that the antitoxin would build up the phago-cytic action of the blood.

Dr. Murfree said that diphtheria had not been recognized in former years. Antitoxin had been remarkable in its results in his hands.

Dr. Sheddan did not think error of diagnosis in the past was the reason that it had not been recognized.

Dr. S. Thach reported three cases of membranous croup treated by antitoxin; in one he used three injections of 2,000 units, recovery; second case seen on fifth or sixth day, used two injections of 2,000 units, died; third case seen on second day, used two injections of 2,000 units, recovery.

Dr. Murfree did not advocate the use of antitoxin to get rid of the membrane, but to enable the system to resist the invasion of the disease germ—it was an antidote to the poison.

Dr. White closed the discussion with a few brief remarks, thanking the gentlemen for their kindness in the discussion.

The Association then adjourned until 2 p. m.

The first paper of the afternoon session was one by Dr. W. J. Jolly, on "Reflex Nervous Diseases in Women," in which he advocated in certain conditions operative procedures.

Dr. J. R. Buist, in the discussion, said that gynaecologists had gone too far in their resort to operative measures to relieve nervous symptoms; but cases did occur in which pathological conditions in the pelvis produced marked disturbance elsewhere that had been relieved by proper treatment or operation. However, healthy tissues and organs should not be removed to relieve nervous affections.

Dr. W. K. Sheddan said that operations on healthy organs for relief of supposed reflex nervous conditions was an absurdity; but removal of diseased organs and tissues was proper.

Dr. McGannon stated that a large number of insane patients had been operated on have resulted in failure. Healthy organs should not be removed for nervous disturbances.

After a few general remarks on this line by Dr. J. B. Cowan, Dr. Jolly closed the discussion.

"Ataxias: Their Differential Diagnosis," was the title of a very excellent paper by Dr. L. E. Ragsdale, which fully covered the ground and was ably discussed by Dr. W. K. Sheddan.

Dr. Geo. P. Edwards' paper on "Electro Diagnosis in Nervous Diseases" was discussed by Dr. Geo. H. Price.

EDITORIAL.

"Dangers of Cocaine in Surgical Practice," by Dr. G. was discussed by Drs. Jolly, Ridings, Zarecor, Stonestreet, Hardison, Murfree, Wood, Price and others. While all recognizing, at times, unpleasant phenomena, some regarded it as dangerous, and others only apparently dangerous. Several cases were during the discussion. As antidotes to the disagreeable stimulants, whiskey, strong coffee, atropia and strychnia, were some advising prophylaxis by preceding the use of coca antidote.

The Association then adjourned until 8 P. M.

"Multiple Pregnancy," by Dr. S. S. Crockett, was the read at the evening session. He gave quite a valuable array and considered the physiology, pathology and varieties. Childrening from a single ovum are both of the same sex, are mostish before birth, are both smaller and feebler than when derived two or more ova.

Dr. S. T. Hardison, opening the discussion, said that while pregnancy was generally followed by an easy parturition, freeness of the children, locking of the children in canal was so difficult to deal with, but fortunately it only occurred rarely. In case of Tamor, in which one hand came down and was married string or cord; the hand afterwards ascended, and the other born first. Nature generally came to the relief in most cases.

Dr. W. K. Sheddan doubted the propriety of trusting to nature, and would prefer podalic version if there was any question. When one child was born, would not like to wait too long for developments, as suggested by Dr. Hardison; would prefer to remaining child in a reasonable time, and would not leave until it was accomplished.

Dr. J. B. Cowan said that heredity in multiple pregnancy idea to him, and thought it might have an influence in prevalence in some cases, if known.

The subject was further discussed by Drs. Coston, Atch and Donoho, the two former reporting cases; Dr. Crockett discussion.

The next order of business, the time fixed having arrived address of the President, Dr. E. W. Ridings. It was delivered in an impressive and eloquent manner, the author receiving many plaudits on his oratory, and was listened to with interest by all. After acknowledging the honor conferred on him in glowing made brief mention of those who had done so much to elevate the profession in this State; such as Paul F. Eve, at one time the acknowledged head of Southern surgery; Bowling, Watson and Linsley; the skilled anatomist and pathologist; Briggs, the bold and skillful; and the classic Callander, whose eloquent words and choice still ring through the halls and corridors of memory, and who

mind pierced far into the unseen realms of physiology and psychology. With a brilliant exhortation in behalf of courage, constancy and endurance in the discharge of duty, he cited the noble examples of the heroes of '78, many of whom went to their death on the field of strife with no hope of reward or that their names would be perpetuated in bronze or in brass. Such names as T. W. Menees, M. O. Bartholomew, M. T. Keating and Benjamin Ward Avent, should be placed by the side of Stuart, Polk, Pelham and Cleburne, who died at the post of duty.

The indiscriminate prescribing of dangerous drugs, as alcohol, opium, cocaine, etc., received a withering blast of denunciation, as did the cigarette habit of our youth, which occasioned the rejection of more men from the military service than any other cause. Unrestricted immigration laws, filling our country with an undesirable population, were also scored; and the performance of criminal abortion by those who were unworthy the name of doctor received the denunciation it deserved. The decrease in the size of American families, the evils of forcing children to undergo long hours of labor in unsanitary workshops, the crowding of those of tender years into ill-ventilated school-rooms, were caustically criticized and condemned.

Regretting that we have not space for the address in full, which was published in the *Daily American* on the following morning, from which we quote the following closing paragraphs:

"Time admonishes me that I cannot mention all the evils which tend to weaken our race, yet there are some others which are of imperative importance in the promotion of the health and prosperity of the individual and the nation. The crowding of children in prisons with hardened criminals, placing boys and girls of tender years in factories and mills to work with poor sanitary surroundings, is a great evil. If mill owners continue to work children, they should be forced to keep their places in a healthy condition. They have no right to rob these children of their very life blood. In this age of hustle and bustle from the cradle to the grave, the rush for an early education, the keeping of children for a long time in crowded recitation rooms, poorly ventilated, breathing the foul air that has become contaminated with carbon dioxide, the loading of their young shoulders with books and their tender minds with knowledge, produces more disastrous results in after life than crowding the stomach with unwholesome food. Especially is this true of our girls, who are destined to perform the hallowed duty of wife and mother. It is not our purpose to protest against the higher education of women, because the first impression comes from the mother. The noblest characters the world has ever known, 'save one,' have been women. Some of our sweetest poems are from a woman's pen. Some of the best works of fact and fiction are the production of a woman's brain. All honor to that great army of women who show that spirit of independence by going out into the world to earn their own living. Still, there are many evils following in its path, and the time is not far distant when we must call a halt or the nation will suffer.

"I hope I have enough of the chivalry of a Tennesseean to bar me from plucking one laurel from the pure brow of womanhood. We are proud to acknowledge them as the uncrowned queens of the world. From the toils of the glove counter we would have her preside over the tables of our homes; from the office and counting-room, we would transfer her to a beautiful boudoir; from the rostrums and responsibilities of the professional life, we would see her manipulating a baby rocker. Old maids would be found only in dime museums, and old bachelors would be the sole occupants of Hades. Let us strive to keep the noble woman of Tennessee in her proper place, the undisputed rulers of the hearts and homes of our beautiful land, so that her mental and physical training may be of the highest type, for she is the superior of man in refinement, the conservator of society, the bulwark of our homes, the stepping stone from earth to heaven."

BANQUET AT THE TULANE.

At the conclusion of Dr. Ridings' address the Association repaired to the dining hall of the Tulane Hotel, where a banquet was given the visiting physicians by the local members of the Association. Dr. S. S. Crockett was master of ceremonies. The menu and toasts responded to were as follows:

MENU.

Cocktails, M.D.

Blue Points

Celery

Green Sea Turtle, aux Quenelles

"The Middle Tennessee Medical Association," by Dr. E. W. Ridings.

Broiled Lobster, Maitre D'Hotel

Asparagus

Olives

"A Modern Gastronomic Feat," by Dr. C. R. Atchison.

Larded Fillet of Beef, with Mushrooms

Cauliflower

St. Julien.

"The Old Time Doctor," by Dr. S. T. Hardison.

Broiled Quail on Toast

Green Peas

"A Physiological Phenomenon," by Dr. Geo. H. Price.

Mayonnaise of Shrimp

Neapolitan Ice Cream

Fancy Cakes

"Virtue of Atmospheric Air," by Dr. J. B. Cowan.

Mixed Nuts, Fruit, Layer Raisins

Edam Cheese, Wafers

Coffee, Chocolate

"The Salvation of Our Country," by Dr. J. B. Neal.

Mumm's Extra Dry

Chancellors

The tables were handsomely decorated with evergreens and beautiful flowers, and the viands and vintages of choicest quality were served in that most inimitable and excellent manner that is only a part and parcel of Mr. Hancock, the genial, courtly and handsome manager of the Tu-Jane. Old members of the profession said that it was the very best and most choice that had ever been placed before an assemblage of doctors in this city. The speeches were chaste, witty and eloquent, eliciting rounds of applause.

The Association was called to order on Friday morning by the President, and the paper of Dr. K. S. Howlett on "The Treatment of Typhoid Fever;" and that of Dr. Garrett White on "Typho-Malarial Fever," were read and discussed jointly.

Dr. E. G. Wood said that coming from a Northern locality, and having been but a short time in the South, he could not speak positively; yet he did not believe there was a typho-malarial fever. He reported a case of a patient coming from a malarial locality, who had an unquestioned attack of typhoid fever. After the fever subsided and convalescence was well established for a week, he had a chill, and all the characteristics of a malarial attack. The diagnosis between malarial and typhoid fever could be made clear by laboratory investigation. He gave some interesting facts and data in regard to Widal's test and its reliability. For the treatment of typhoid fever he relied on cold baths and antiseptics. Did not use the coal tar derivatives. Had confidence in antisepsis by drugs that will place the bowels in a condition to resist typhoid effects, such as thymol, sulpho-carbolate of zinc, etc. He advised care in the method of using quinine to secure results in malarial fever, as in capsules, pills, or even in powder, it might not be absorbed.

Dr. Cowan said he had observed quinine negative in results from non-absorption. He was skeptical as to antisepsis. Malarial poisoning was developed in the system by means of the water imbibed, and not through the atmosphere—at least, it would not enter the system from a dry atmosphere; possibly the moisture of a fog might maintain the vitality of the germ and enable it to enter the system.

Dr. McGannon made some remarks in discussion.

Dr. Zarecor said that in treating opium habitues he had noticed that as the opium was withdrawn malarial intoxication would make its appearance.

Dr. Hardison said that in malaria and other febrile conditions the hair would not fall out, but it was a marked feature after a typhoid attack. He had given sulpho-carbolate of zinc a good trial, but without satisfactory results. Intestinal antisepsis was a failure, but he had unquestionably derived benefit from emulsion of turpentine. If you will give nitrate of silver early you will have no intestinal hemorrhage.

Dr. F. B. Reagor made some general remarks in the discussion.

Dr. W. K. Sheddan did not believe that such a fever as typho-malarial existed. He advocated the Brandt method of treatment in typhoid.

Did not approve of sweet milk as a diet; preferred buttermilk, fresh meat juices and fruit juices. Strychnia will meet indications in some conditions, and alcohol is beneficial in some cases. Would never use opiates. Liberal use of water externally and internally; antiseptics useless.

Dr. Moody said there was no typho-malarial fever. Did not give much medicine—take care of the patient until the storm of fever subsides. No good results from antiseptics. He had confidence in the use of emulsio terebinthine.

Dr. E. G. Wood said that he did not think that thymol and zinc sulpho-carb. would interfere with digestion or appetite. Turpentine had stood the test better than any other remedy; it was an antiseptic. He advocated the use of opium in hemorrhage and extreme nervous disturbance.

Dr. W. K. Sheddan reiterated his opposition to antiseptics. Would not use opium in hemorrhage or nervous disturbance; cold applications with rest and quiet were better. Stimulants meet the indications in the latter condition, and turpentine acted as a stimulant.

Dr. Trawick had great confidence in antiseptics, and used guiacol carbonate.

Dr. L. K. Sheddan brought up the subject of intestinal perforation, advising immediate surgical measures. He reported a case, which, however, was unsuccessful, having been deferred too long. Operation offered a chance; and the only one, but must be done early.

Dr. Howlett, in closing, commended surgical interference in perforation, if resorted to early. He objected to opium in typhoid fever. Did not believe that malarial infection was solely due to impure drinking water. Had no benefit from antiseptics. He said that the hair would fall out in any case of high temperature.

Dr. White closed the discussion, following the lines of his paper.

Dr. M. C. McGannon next read a short paper on "Phantom Tumors," reporting a case. Advised anaesthesia in confirming diagnosis. Tumor might disappear if patient's attention was attracted by other subjects. Firm pressure on tumor while patient was talking would gradually result in its reduction in volume.

Dr. E. W. Ridings reported a case.

Dr. W. K. Sheddan had never seen a case. Thought hysteria had some influence in its development, as it would assume any form that would excite curiosity or sympathy.

After some general remarks by Drs. L. L. Sheddan and S. T. Hardison, the discussion was closed by Dr. McGannon.

The report of the Secretary and Treasurer, which showed a good balance on hand, was received and adopted.

Dr. H. R. Coston read a paper on "Veratrum Viride in Puerperal Eclampsia," which was discussed by Drs. Hardison, Moody, Cowan and C. A. Robertson, when the Association adjourned until 2 p. m.

At the afternoon session a very excellent paper on "Syphilitic Stricture of the Rectum" was read by Dr. A. B. Cooke, which covered

the ground so fully it was not discussed, but heartily commended by quite a number of those present.

Dr. R. Stonestreet read a paper on "Infant Feeding," which was discussed by Drs. Moody, Reagor, Howlett and Cowan, all giving preference to cow's milk where the mother could not nurse the child. Its proper dilution, and giving the baby water to drink, were commended.

The last paper was read by Dr. Barton Stone, on "The Mental Aspects of Neurasthenia," which was a most excellent one, and was commended by those taking part in the discussion—Drs. G. P. Edwards and S. S. Crockett.

The programme having been completed, Franklin was selected as the next place of meeting, and the following officers were elected:

President, Dr. S. T. Hardison, of Lewisburg; Vice-President, Dr. M. C. McGannon, of Nashville; Secretary and Treasurer, Dr. Paul Clements, of Nashville, all being unanimous, and at 3:10 p. m. the Association adjourned.

Attractive features of the meeting were the display of Messrs. Demoville & Co., including antitoxin syringes, autosprays, and an abundant supply of the greatest of all beverages, "White Rock Ozonate Lithia Water," which was served in unlimited quantities to all present; the surgical instrument display of Theo. Tafel; medical books by Hunter & Welburn; bandages and surgical dressings by J. Ellwood Lee; and pharmaceutical preparations by Fredk. Stearns & Co.

THE QUARANTINE CONVENTION AT MEMPHIS.

The outcome of this meeting was not quite as satisfactory by any means as we hoped for. Possibly our people will learn by experience, which, though of all schools the best, yet is a very costly one, and in which the progress in this special line seems distressingly slow indeed. However, everything comes to him who waits, and if the time is not yet ripe for decisive and effective action, we patiently bide our time and hope that it will be in the near future.

The attendance on the meeting was reasonably large, and embodied quite a number of representative men. The outcome of the meeting, so far as we learn, was a resolution, that was passed to some extent by parliamentary tactics of a somewhat sharp order, in which the Caffery bill was recommended, coupled with some provisos and attachments.

The suggestion of a new Bureau of the Treasury Department may have been intended to overcome the objections of those who are opposed to a national quarantine outright, and, as the *Daily American* of this city, Nov. 21st, says, "to seemingly flank the idea that the Government would have the absolute quarantine power and the exercise of that power when quarantines are required."

The editorial from which the above quotation was made very correctly continues as follows:

EDITORIAL.

"If the advisory council suggested by the resolutions will have power to veto the plans decided upon by the Bureau of Public Health which the resolutions provide shall have the administration of all health functions, clashes innumerable will follow in attempting to quarantines, and the two-headed department will fail of its purpose. Quarantines and quarantine laws are obliged to be autocratic, forced more or less autocratically to be effective. This fact has 'shot gun' quarantines all over the South when yellow fever is prevalent and the strict enforcement of such quarantines. Different methods are adopted in quarantining in different States, and often a difference in method practiced by the Federal Government's quarantine officials and those of the States, have helped to produce 'iron-clad' and 'sham' quarantines where they were not needed.

"An effective quarantine requires a comprehensive quarantine under a responsible head to a department having entire control of the execution of the quarantine law, and no interruption to the workings of the department by local committees, or the representatives of local interests.

"Too many advisers will be likely to produce discord, especially if they represent localities, and the enforcement of a general law proposed by the General Government would scarcely come up to expectations if the head of that bureau had first to conciliate an advisory committee before acting as his sense of duty may dictate.

"It is scarcely possible that the team so constituted would pull together.

"Quarantine being an autocratic rule for the public's good, to be enforced by the General Government, the State, communities or individuals, the proper exercise of this power should rest with the General Government, because it could thus be more effectively, expeditiously and inexpensively enforced, producing better and more lasting results than if its enforcement is left to a partnership between the General Government and the States.

"In declaring for a quasi-national quarantine, though we believe the convention made a mistake in attempting to set up a compromise, the convention did take a long step forward, for its action shows that the delegates recognize that the present modes of attempting to enforce quarantines are slip-shod, non-scientific, without system, and force State and local communities to the adoption of methods which to business and individual interests are almost as destructive as the presence of the disease attempt to be kept out.

"When the Executive Committee appointed and Congress authorized, it may be that something more definite and of real advantage will result. As it is, the convention only decided to make some suggestions to Congress, although the intent of these suggestions can be taken in favor of a limited national quarantine."

As we argued in regard to the National Board of Health, its organization necessitated a divided responsibility, and it was necessarily autocratic. We in the South, especially, must get rid of that terrible

boo, infringement of State's rights. Granted that State's rights as well as individual rights are an important feature of our constitutional inheritance, and should be demanded and maintained upon all appropriate occasions and conditions, yet at once they are swept aside with a marked unanimity of accord on the part of each and every one in the event of foreign invasion or domestic insurrection. Where are these rights when on such occasions martial law is declared in any part or parcel of our domain? Temporarily they are laid aside until the danger is past.

There is but one way practical for a quarantine to be effective, and that is to put it under control of the Federal Government, and hold that government responsible for the results. A divided responsibility will accomplish nothing. The inefficient and disconnected local and State quarantines cannot be made effective. There are too many conflicting local interests, that should be made subordinate to the welfare of the masses of our people. The matter is one that in its very nature requires central control by a strong hand. Exaggerated and archaic ideas of State sovereignty should not be allowed to stand in the way of practical measures which alone can accomplish satisfactory results for the need of which this country, and especially its southern portion, has so often and so sorely suffered in the past.

In conclusion, we reiterate our endorsement of the Spooner bill, which has been brought before our national lawmakers after earnest recommendation at the hands of the two national organizations having more cognizance, and having given the entire subject closer discriminating study and investigation—the American Medical Association and the American Public Health Association.

Possibly nothing can be done with our present Congress—the many other matters of both national and international import will occupy to the full the short time left it. But the next Congress, whether it meets in March or December, 1899, should have this matter brought before it in such a way that it will not only demand but command the earnest attention and thorough consideration that it deserves.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL, ASSOCIATION.

The eleventh annual meeting of the Association which was announced to be held in Memphis, Tenn., Tuesday, Wednesday and Thursday, November 8th, 9th, and 10th, has been postponed till Tuesday, Wednesday and Thursday, December, 6th, 7th and 8th, 1898, on account of the quarantine regulations in some parts of the South. The Gayoso House has been selected as headquarters for the Association.

The following is a partial list of the papers to be read:

1. President's Address, Richard Douglas, M.D., Nashville, Tenn.
2. Gunshot wounds, W. E. Parker, M.D., New Orleans, La.
3. Electro therapeutics in medicine and surgery, Jas. McF. Gaston, Atlanta, Ga.
4. The normal position of the uterus defined, A. H. Buckmaster, M.D., Charlottesville, Va.
5. Abdominal opening for intra-peritoneal surgical work, Jos. Price, M.D., Philadelphia, Pa.
6. The choice of material for ligatures and sutures in gynecological surgery, L. S. McMurtry, M.D., Louisville, Ky.
7. Repair in cases of complete tear of the perineum, How and A. Kelly, M.D., Baltimore, Md.
8. Conservative treatment of the diseased ovary, Jos. Taber Johnson, M.D., Washington, D. C.
9. Thoracotomy for tumors involving the ribs, F. W. Parham, M.D., New Orleans, La,
10. The use and abuse of normal salt solution, J. W. Bovee, M.D., Washington, D. C.
11. A report of fifty prostatectomies, with remarks on the treatment of prostatic overgrowth in the aged Jno. P. Bryson, M.D., St. Louis, Mo.
12. Remarks on the surgery of the gall-bladder and bile-ducts, A. V. L. Brokaw, M.D., St. Louis, Mo.
- 13 Past and present surgery of the gall-bladder and bile-ducts, Wm H. Myers, M. D., Fort Wayne, Ind.
14. The pelvic floor, its functions, injuries and repair, M. C. McGannon, M.D., Nashville, Tenn.
15. When should we operate for appendicitis? A. M. Cartledge, M.D., Louisville, Ky.
16. Ureteral anastomosis, Geo. H. Noble, M.D., Atlanta, Georgia.
17. Ovarian cysts as a complication of pregnancy and labor, J. W. Long, M.D., Salisbury, N. C.
18. Incised wounds of the larynx, Edwin Walker, M.D., Evansville, Ind.
- 19 Tubal pregnancy; primary rupture into the broad-ligament and secondary into peritoneum, laparotomy, convalescence complicated by septic diarrhoea and metastatic abscess of the liver, R. Matas, M.D., New Orleans, La.
20. Removal of partially descended, infected, strangulated testicle, complicated by hernia, R. R. Cline, M.D., Atlanta, Ga.
21. The diagnosis of tubercular peritonitis and indications for surgical treatment, W. L. Robinson, M.D., Danville, Va.
22. Foreign bodies in the oesophagus with report of cases, A. Vander Veer, M.D., Albany, N. Y.

- 23 Penetrating wounds of the abdomen, Floyd W. McRae, M.D., Atlanta, Ga.
- 24 The management of pregnancy complicating intra-abdominal tumors, with cases, Rufus B. Hall, M.D., Cincinnati, O.
25. The rarity of ovarian tumors in negroes, I. S. Stone, M.D., Washington, D. C.
26. Tumors of the breast, W. F. Westmoreland, M.D., Atlanta, Ga.
- 27 Penetrating wounds of the chest, J. B. Murfree, Murfreesboro, Tenn.
28. Surgery of the pelvic organs without speculums or retractors, W. H. Wathen, M.D., Louisville, Ky.
29. Report of a case of splenectomy for wandering hypertrophied spleen. Wyatt Heflin, M.D., Birmingham, Ala.
- 30 Cœliotomy in the treatment of retroverted pregnant uterus when incarcerated, Henry D. Fry, M.D., Washington, D. C.
- 31 Odds and ends in pelvic surgery, Walter B. Dorsett. M.D. St. Louis, Mo.
- 32 Treatment of pelvic inflammation, Jas. A. Goggans. Alexander City, Ala.
33. Mechanical aids in intestinal surgery, J. D. S. Davis, M.D., Birmingham, Ala.
34. The history of myomectomy, Chas. P. Noble, M.D., Philadelphia, Pa.
35. Observations upon cranial operations with report of cases, Wm. Perrin Nicholson, M. D., Atlanta Ga.
36. Plastic surgery in gynecology, W. D. Haggard, Jr., M.D., Nashville, Tenn.
37. Ventro-fixation for retro-displacements of the uterus, R. J. Trippe, M.D., Chattanooga, Tenn.
38. Removal of five gallon ovarian cyst from girl seventeen years old, R. R. Kline, M.D., Atlanta, Ga.
39. Transpleural hepatotomy by resection of the rib and free incision; recovery, R. Matas, M.D., New Orleans, La.
- 40 Subject to be announced W. S. Elkin, M.D., Atlanta, Georgia.
41. Surgery of the stomach, W. E. B. Davis, M.D., Birmingham, Ala.

Members of the medical profession are cordially invited to attend. Dr. R. B. Maury, of Memphis, is chairman of the committee of arrangements.

RICHARD DOUGLAS, M.D.,
W. E. B. DAVIS, M.D.,
Secretary,

President.

THE FIRE FIEND got in its work on the building of the Medical Department of the University of Tennessee on the morning of Friday, Nov. 11. It was first discovered about 7 A. M., and despite the efforts of the fire department, one of the members losing his life, all but the lower story was destroyed. The loss will amount to between \$15,000 and \$18,000, pretty well covered by insurance. Notwithstanding the unfortunate event, it occasioned but little interruption to the course of study, as before the day was over new quarters were secured and everything was moving along serenely. For a lecture hall the faculty are now using the old City Hall, on the Public Square, with very suitable anatomical rooms on Summer street, both of which will suit most excellently for temporary quarters. That the fire had but little effect on this active and energetic faculty was clearly demonstrated by the fact that two students were matriculated in front of their building on Broad street before the fire ladies and their paraphernalia had left the scene of action. Active steps are being taken, and a new building will soon take the place of the old, although the present class—the largest ever in attendance—will sustain no loss by the brief interlude, and the graduates of this session can ever after claim that they have been tried by fire.

A NEW CALENDAR with original and unique designs has just been issued by the Antikamnia Chemical Co., of St. Louis, Mo. If you have not received one, a postal card addressed as above will secure something that you will appreciate during the entire year 1899.

COUNT THE RED BLOOD CELLS and you will see that Pepto-Mangan (Gude) is an oxygen-carrying, haemoglobin-producing chalybeate tonic in anæmia, chlorosis, or blood impoverishment from any cause. M. J. Breitenbach Co., 56 and 58 Warren Street, New York, will be pleased to send you clinical reports demonstrating this important fact, which from continued trial we have found to be a fact.

ARSENAURO AND MERCAURO have given most excellent evidences of their value as therapeutic agents. They have been introduced to the profession through strictly ethical channels, and the manufacturers rely solely upon the medical profession for their use and avail themselves only of literature furnished by medical men in extending their usefulness. The label on their bottles contains no dosage for use by unprofessional users, only the exact strength of each product for use of the practitioner. Having received many requests from the laity in regard to their product they uniformly send out a stereotyped letter of which the following is a true copy:

“Your valued favor at hand. There is no question regarding the remarkable therapeutic value of our preparations. It is, however, a matter of importance that they be administered under the careful observation of a medical practitioner. The question of dosage is most important, it

being necessary to increase it, or decrease it, as certain manifestations appear. These points can only be determined by a medical practitioner. If you will send us the name of your physician, we will with pleasure communicate with him, placing before him all the facts which we possess in reference to our products. Our line of work is entirely through ethical channels and while we claim that our products are in many ways extraordinary ones, it is only possible to secure their full therapeutic value through proper administration. We are manufacturing chemists and as it is solely the province of physicians to prescribe, you will understand why we cannot send what you ask for.

Respectfully yours,
CHAS. ROOME PARMELE Co.

THE ONLY ONE.—"I am glad to be able to give you the following testimony regarding a patient who has been an invalid for many years, and has had great trouble with her diet, I think due to a sub-acute inflammation of the mucous membrane of the stomach and bowels. For months at a time she has been unable to take a particle of starchy food, and naturally a number of the prepared foods have been tried and different ones have seemed for a time to agree with her, but Imperial Granum is the only one she can always rely on, often using it exclusively as a diet for weeks at a time. In one or two instances we feel that it has almost saved her life."

A HIGHLY EFFICIENT COMBINATION for the treatment of feebleness and loss of weight dependent on exhausting chronic diseases and retarding convalescence, will be found in Gray's Glycerine Tonic Comp., Formula Dr. John P. Gray. In the loss of flesh caused by too rapid growth in youth, the waning nutrition of advancing age, and often in tuberculous cases, good results may be depended upon. Weakly children soon show its beneficial effects, and for debilitated women it is unsurpassed.—The Purdue Frederick Co., 15 Murray Street, New York City.

IN LARYNGEAL OR WINTER COUGHS.—Dr. Walter M. Fleming (*Jour. of Mental and Nervous Disease*) says that in acute attacks of laryngeal or winter cough, tickling and irritability of larynx, Antikamnia and Codeine Tablets are exceedingly trustworthy. If the irritating spasm prevails at night the patient should take a five grain tablet, containing $4\frac{1}{2}$ grains of Antikamnia and $\frac{1}{2}$ grain of Codeine, an hour before retiring and repeat it hourly until the irritation is allayed. Allow the tablet to dissolve slowly in the mouth, swallowing the saliva. After taking the second or third tablet the cough is usually under control, at least for that paroxysm and for the night. Should the irritation prevail in the morning or at midday,

EDITORIAL.

the same course of administration should be observed until a neuralgia, in short, for the multitude of nervous ailments, h there is another remedial agent so reliable, serviceable and : and this without establishing an exacting, requirement, or h system, as morphine does.—*The New York Medical Journal.*

THERE IS NO QUESTION with the medical profession, but den's Viburnum Compound is the most powerful and safest an known in this country. In all internal diseases, especially co women and children it has no equal.

Specially indicated in disorders of the bowels, diarrhoea cholera infantum and cholera, giving prompt relief.

Thirty-two years in the hands of the profession, and still in usefulness the more it becomes known.

McGEE'S WINE OF COD LIVER OIL WITH HYPOPHOSPHITE strength preparation of Hypophosphites, equal in strength of to any reliable syrup, and contains in addition to the lime, as manganese, quinine, and strychnia twenty-five per cent. of c as represented by its extractives or alkaloidal principles, been demonstrated by Germain-See and others of like promin tain the therapeutic qualities of the crude oil. It also contai trated extract of the fresh berries of the Saw Palmetto, whic tionably a nutrient, tonic, and diuretic as well as a seda mucous surfaces. It is not a nutritive agent, but improves nu duces fat, and possesses marked vitalizing powers over the r organs.

HYPO-SUBSTITUTE FOR OPIATES.

Dr. Obe F. Watlington, of Memphis, Tenn., writes in *Brief*, "I have in my possession a hypodermic alkaloidal solut a specific in drug addictions (opium habituation, alcoholism receipt of a two-cent stamp I will take pleasure in furnishing medical profession the formula, by the use of which a numbe ternity have been enabled to cure themselves of opiumism, and insomnia. I used morphine hypodermically for ten years a perfect cure by this prescription.

When several hundred medical men have tested a remedy; it good, there is temptation to try it. But when thousands of : all over the world have tried and tested a preparation like Al in the diseases in which it is recommended, viz.: Amenorrhea,

Prolapsus Uteri, Sterility, to prevent Miscarriage, etc., and have given the most brilliant report as to its value, it seems as though physicians who have cases of this kind would have an irresistible desire to at least test it.

POSTPONEMENT OF THE THIRD PAN-AMERICAN CONGRESS:—In accordance with the request of the Government of Venezuela, and of the Committee on Organization, the III Pan-American Medical Congress is hereby postponed to meet in Caracas in December, 1900.

For the International Executive Commission.

CHARLES A. L. REED,
Secretary.

We call the special attention of our readers to the advertisement of the Robinson-Pettett Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

DR. ALBERT ABRAMS, author of the "Antiseptic Club," has written a series of satirical sketches which abound in rich humor, and are pronounced his best work. They will appear in the *Medical Fortnightly*, beginning January 1st, under the head of "Scattered Leaves from a Physician's Diary."

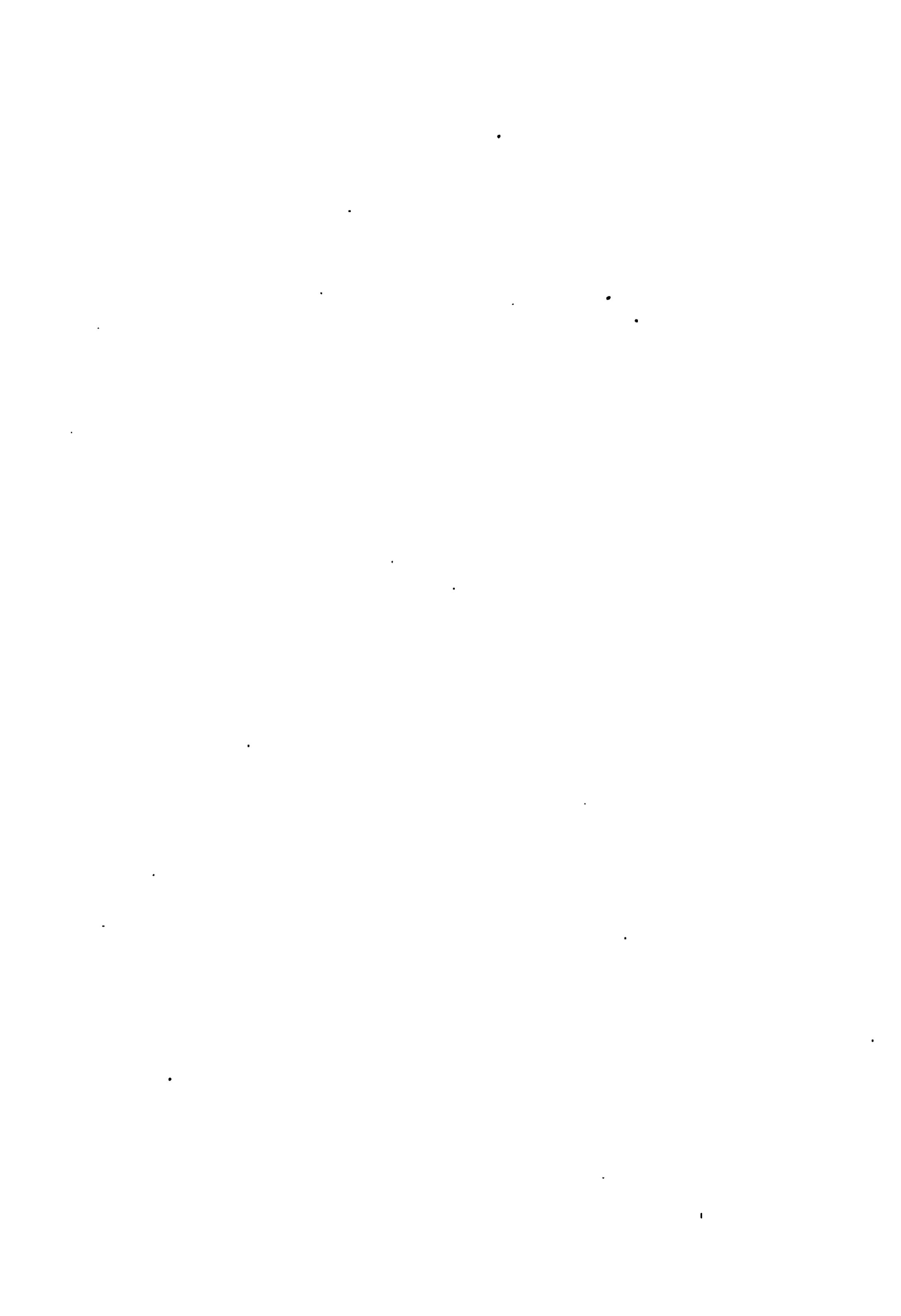
THE GELATIN CAPSULES of H. Planten & Son are old and tried friends of the last two decades, and to which we become more and more attached. Their Perloids of Sandal Oil are "pearls above price," Yes, gems indeed.

THE CANTON SURGICAL AND DENTAL CHAIR CO. are sole manufacturers of "The Yale," which stands without a peer, and should be a feature of every progressive doctor's office.

VOLUME XX. now being complete, we desire to tender our sincere thanks to our many friends and readers for their contributions, their subscriptions and their many kind words of encouragement, and to suggest that renewals of subscriptions are now in order, promising to make our next volume more attractive and interesting than any preceding it.

Entering on our 21st year of Editorial work, we can look back on the past with satisfaction in making such a promise.









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